I Notes taken in looking through Lindheimer's Texan Collection No. 2

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72 Ranunculus; similar to pusillus different: caule basi retorsum hispido — petalis 5 oblongo linearibus ~~sepalis~~ ovatis duplo longioribus, ~~carpellis~~ ovatis marginatis, apiculatis. — might be called R. texensis; I hardly think it a variety of pusillus

vide IV.

Ranunculus ~~granulatus~~ trilobus near R ophioglossoides distinct by cylindrical heads — small flowers sepals recurved, ~~=~~ petals spatulate stamens few — carpels tuberculate

89. Galium ~~texanum~~ texanum ~~annuum~~ glebe annuum fol 4 (or 5) fruit glebe. — near Galium angloricum?

Clematis heterophylla subsecuta

76 Gaura ~~[illegible]~~ Lindheimeri erecta hirsuta v. pubescens ~~pilosa~~ — ~~lanceolata~~; fol nunc obovatis obtusis, lyrato pinnatifidis, f. caulinis sessilibus lanceolatis acutis sinuato-dentatis margine ~~[illegible]~~ is pis, superioribus subintegris; bracteis ovato lanceolatis acutis ovarium superantibus deciduis; ~~[illegible]~~ ovarium calycis tubo infundibuliformi ovarium aequante, segmentis hirsutis duplo longioribus ovatis (subrhombeis) acutis, petalis calyce paulo brevioribus obtusissime unguiculatis. — fructu (~~[illegible]~~) subpedicellato supra infraque attenuato 4 angulato canato, ~~carinis 4 intermediis~~ lateribus ad medium carinatis, glabro rugoso (transversim striato)

fl. ~~[illegible]~~ Apr. May. Texas

2-4 or 5 feet high in Apr. May and again in Aug. & Sept.

Open Prairie

Specimen from September 1841 which appear to be the same have somewhat smaller flowers — segments of calyx only twice as long as tube — fruit pilose subsessile ovate acute at each end with 4 strongly carinate angles the sides one ribbed up to the middle ~~fruit at length reflexed~~ plicate rugose

distinct from C. villosa Torr. to which it bears the greatest resemblance by the large hairy larger petals subsessile fruit, short ovary fruit similar to the description of J. tripetala but calyx segments much longer than the tube, fruit not closely sessile — stem more or less trimerous

Malva affinis similar to M. Papaver distinguished by finer divided leaves, more nervose or ribbed calyx and pointed carpels, which are blunt in M. Papaver.

carpels and seeds about half as large as in M. Papaver a much smaller plant with flowers apparently as large as in Papaver

— Spiranthes verna E similar to Sp. vernalis Pl Apiat & Mas

Pyrrhopappus carolinianus DC Pappus white, — head of the rostrum with a hairy or woolly ring; — rostrum as long as the achenium — pedicels and involucrum a little tomentose

graph

13 Cirsium filipendulum E. near C. discolor Sp.? near C virginicum but heads twice as large; fibres of root enlarged, acute at base and top; hollow, filled with loose tissue and air. leaves more divided than in C. virginicum

16. Liatris Lanceolata E very near L. mucronata DC and some of the specimens of Torrey & Gray appear to belong to this species.

L. glabra, radice tuberosa multiceps pilosa caule foliosa; foliis linearibus basi dilatatis semi amplexicaulibus apice callosis obtusiusculis, punctatis spicis densis brevibus, capitalis subsessilibus tubo appressis, 5-floribus squamis paucis adpressis (subortonis) purpureis lanceolatis acuminato subulatis, dilatatis & pappo brevioribus; exterioribus brevissimis achenii glabriusculis pappum aequantibus plumosum

II. Notes on Lindheimer's Texas Collection

No. 2

11. Croton ~~[illegible]~~ argyranthemum foliis ovatis, rudiore lignosa perennis multiceps caulibus ramosis argenteo-lepidotis foliis inferioribus obovatis obtusis, superioribus lanceolatis petiolatis subacutis in petiolum attenuatis omnibus supra viridibus sparsim squamosis subtus argenteo-lepidotis floribus ~~[illegible]~~ racemosis pedicellatis; ~~[illegible]~~ calyce femineo, 5-partito, stylis 3 bipartitis stigmatibus bifidis; — calyce masculo 5-partito ~~[illegible]~~ petalis 5 ~~[illegible]~~ spathulatis basi lanuginosis stam. 15–20 anth. linearib. Texas April 1842 —

vide last page.

Open woods,

the same!

perhaps = Cr. argyranthemum Mx

12. Stylingia ligustrina ? different apparently by the long pedicellate male flowers, from the true St. lig.

6a Euphorbia umbell terminal — sem. reticulato-rugulosis; as mine from Prof Gibson; — annual

Euphorbia (I. 42) lanato-hirsuta ~~[illegible]~~ ? Umbellis 3 fidis, bis dichotomis involucris involucellisque lineari-lanceolatis basi attenuatis, ~~[illegible]~~ albido-viridibus glandulis ~~petaloideis~~ margine petaloideo subobsoletis, capsulis dense lanatis seminibus ~~[illegible]~~, rugis sparsis instructis

Texas Septembr 1841 # foliis lanceolatis, antis sessilibus, villosis #

47 Cusenta ~~[illegible]~~ # hispidula #

vide Cuscuta

70 Astragalus flagellaris is there a constant difference of this and distortus? I find amongst my Texas specimens some with smaller deep purplish blue flowers, others with larger paler flowers but very dark blue tip of carina — legume more slender or thicker and even more wrinkled or smoother hair of calyx bleuish or more whitish?

Baptisia leucophaea β. laevicaulis stem smooth, glaucous, (not woolly), stipules and bracts smaller calyx more smooth teeth lanceolate subacute (not ovate obtuse) leaves frequently smoothish obovate or rhombic (not oblanceolate, woolly

Amorpha glabra Desf. (not ainlii Croom) foliis petiolatis

Lythrum ~~salicaria~~ E distinguished from L. alatum by the leathery (not ~~smooth~~ membranaceous) leaves, with perfectly smooth (not scabrous) margins, and erect not recurved teeth of calyx ~~stamens~~ ~~not 6 stamens~~

Xuellia nudiflora pyxis paniculiformis nuda; gladuloso pubescente; capsul pubescente, calycis laciniis subulatis pubescentes subexpansis

Asclepias hirmanthophylla ? picta alata (4-6') glabra glauca; fol. distantibus oppositis breviter petiolatis; liniari lanceolatis horizontalibus longissimis margine revolutis, umbellis 2-3 paucifloris (6 ✗) terminalibus nudis ~~2-3~~ neutris; ovarium geminatum duplo superantibus

fl. aurantiacis albis signat roboreis, humidis swamps, gulcast (near Lynchburg)

Vigna pubescens cal. bilabiate. 4 teeth, middle tooth of lower lip longest, acuminate upper tooth roundish. vexill. roundish orbicular. 2 callosities along ~~[illegible]~~ appendiculate carina acutish straight ~~Stigma lateral~~, style hispid below the lateral stigma.

stipules subcordate at base ~~cordate subulate~~ acuminate, 3 nerved leaves broadly ovate acute, petiolate bibracteolate, peduncles longer, flowers spiked. 10–15; legume when compressed ~~[illegible]~~ when ripe, black white villous with white hairs; seed black with white hilum —

carina deep, vexill pale yellow flowers yellow, as large as the garden bean

distinguished from V. glabra by the pubescence and the compressed legume; ~~—~~ from the Georgia plant by the 4 parted calyx, small flowers

variety on the terrakish swamps with lanceolate and linear lanceolate leaflets.

perhaps not different from V. glabra?

Amorpha incana n. sp. suffruticose, 1–3 feet high, much branched canescent; leaves sessile, leaflets 16–24 pairs (small) elliptical, terminal orbicular, obtuse mucronate, above canescent, below tomentose V. pellucid glandular spikes sessile axillary terminal, bracts (like stipules & stipells) setaceous; flowers subsessile, calyx canescent & glandular teeth of the calyx somewhat bilabiate, broader, larger, 3 lower ones two upper ones lanceolate, all acute and about as long as the tube; vexillum orbicular for obcordate bright blue; ovary & unique pod silky pubescent (2 ovulate, 1 seeded.

Calyx much larger, less tomentose and bilabiate open, not closed with

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MISSOURI BOTANICAL GARDEN

the incurved teeth, as A. canescens

perhaps between A. canescens & A. herbacea

Solidago microphylla, caule glabro, angulato (plerumque colorato) supra virgatim ramoso; foliis glabris, adpresse serratis, margine et ad nervos ciliato-scabris, reticulatis, radicalibus spatulatis in petiolum decurrentibus, caulinis superioribus lanceolatis basi attenuatis subpetiolatis, acutis; superioribus spatulatis obtus. v. acutis, subintegris; racemis secundis elongatis virgatim paniculatis; squamis involucri linearibus acutis, viridinervosis; acheniis pubescentibus

fl. disci 4-6, radii 2-4. — Margin of woods near Mounts Sept. Oct. with S. Altissima

Solidago Ludoviciana caule glabro, simplici, basi adscendente foliosus; foliis lineari-lanceolatis mucronatis, basi angustatis, sessilibus, inferioribus elongatis, superioribus brevioribus, uninervis, sparsim venosis, pellucido reticulatis glabris (subtus nervosis) integris, margine scabris capitulis paniculatis contractis, pedicellis subangulatis secundis, angulatis scabriusculis; involucri capitulis majusculis, squamis linearibus glabris, exterioribus brevibus, laxis; fl. radii 6-10 disci 11-13.; acheniis minutissime pubescentibus

Barren places in a high prairie west of Mounts

flow June & July.

Similar to S. angusta T & Gr. but radix adscendens, pedicelli elongati, fol. integra, achenia ~~tripedalia~~ pubescentia, pap.

Cotula dioicifolia (see first page) whole plant covered with scales which are fimbriate and attached at the middle (stellated hairs, membranously connected), even petals and styles — Ovary sessile on a fleshy disc. — The three styles are generally twice bifid; the last division is more or less deep, or one of them wanting so that the style appears 3 parted

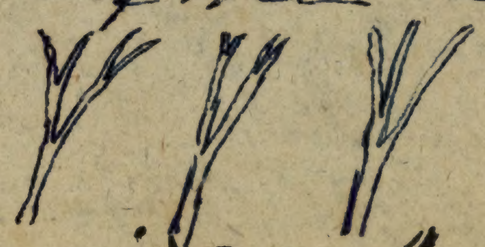

Figure of Cotula dioicifolia

Phil. 413

Ph. II 26

III. Notes on Drummond's Collection Dec 1842

Gaura exaltata ~~stems~~ erect, 6-9 feet high, villous-pubescent below, adpress, canescently pubescent above, much branched above, leaves lanceolate, or linear lanceolate, attenuate at each end, sparsely repand toothed, nearly ~~smooth~~ glabrous above pubescent with adpressed hairs below; bracts linear deciduous; segments of calyx about the length of the tube 2-3 times as long as the canescent ovary, rather longer than the ovate long unguiculate petals; fruit ~~ovl~~ sessile oval oblong, ~~with~~ subacute, with 4 prominent obtuse ribs, and 4 inconspicuous intermediate ones.

Prairies on the margin of woods, Houston Aug - to October, 6-9 feet high, ~~spreading~~ often exclusively covering large spaces of ground. ~~in~~

Distinct from G. biennis, by the long unguiculate petals, much smaller flowers and shorter not acuminate fruit; from G. parviflora by the short canescent ovary &c. and much smoother leaves

Gaura Lindheimeri stem erect, etc see above

Gaura bractеata stem erect, smooth, branching above, leaves sessile lanceolate, sinuate dentate glabrous, bracts linear lanceolate, smooth, ciliate, much longer than the ovary persistent. segments of the hirsute calyx as long as the tube and the ovary together; petals? fruit?

Wet Prairies, Lynchburg, Texas — July —

Lavauxsidium texanum agrees perfectly well with Drummond's Lavauxsidium but ~~ach~~ style of the disc flowers shorter than the tube and always sterile! rays 20-30. achenia ~~of the~~ striate sparsely pilose (ovaries puberulent) of the disc sterile 4 angular of the ~~disc~~ ray somewhat irregular, winged,

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plant suffruticose, decumbent very minute
lower ~~cauline~~ leaves, spatulate, ~~sub~~ sometimes obtuse, dentate
upper ones occasionally ~~semi~~ amplexicaule.

Polygonum texanum vide Polygona

Lindheimeria calyx inferus urceolatus, 5 dentatus lana
densa vestitus; corolla persistens infer tubulosa, 5 dentata
~~scariosa~~ membranaceus, persistens; antheræ ~~sessiles~~ uniloculares, sessiles ~~in~~ faucem corollæ et alternantes, cum lobis; ~~utriculus indehiscens calyce~~
~~calyx fructiferus~~ ovarium superum, 1-ovulatum
stylus 1. stigma capitatum; calyx fructiferus
induratus, compressus, marginibus spinoso-
pectinatis, latere altero basi 1 spinosus, altero
2 spinosis, totus lana densa vestitus, utriculus
membranaceus indehiscens 1 spermus. Semen
funiculo longo capillaceo e fundo capsulæ utriculi ortum
instructum et ex ejus ope revolvo funiculum.
Embryo cylindraceus, ovum albumen farinaceum
~~centrale~~ involvens, peripheriens, radiculâ ad
hilum versa. —

Genus ~~Planta~~ Solenotheis maxime affinis et
a Guillemineâ solummodo corollâ monopetalâ
distinctum.

Herba texana annua erecta lanuginosa
foliis oppositis integris ex stipulatis
floribus spicatis, spicis interruptis ~~ante~~ ramosis

L. texana foliis lanceolatis, inferioribus
in petiolum attenuatis, superioribus sessilibus
supra viridibus scabridis, subtus albo lanuginosis

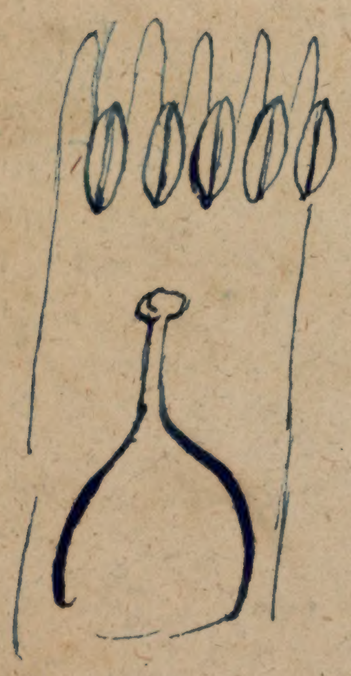
flores parvi dense spicati corolla flavescente,
antheris puniceis ornatâ

Flora Juna

Oplothera

Sandy places in thickets near Houston, in small groups

fl. Sept & Octob



superne longitudinaliter sulcatus

Crinidium spatha bifida unifl[ora], perigonio sexpartito regulari, antheris 6 linearibus (bivalvibus) ad basin limbi insertis, stylo ex vertice stigmate 3lobo; capsula infera 3 valvi 3 locularis seminibus ~~in~~ ~~loculis~~ distichis imbricatis (4 ~~ad~~ 8 in singulis loculis).

genus Crino ~~valde~~ ~~texanum~~ affinis, spatha uniflora tubo elongato et antheris semilibus ~~valde~~ diversum.

Herba bulbosa texana.

Crinidium autumnale foliis linearibus scapo brevioribus; tubo floris elongato (4-6 pollicari) laciniis linearibus ovato lanceolatis extenoribus mucronatis (pollicaribus) capsula depressa.

grows in dry prairies near Houston

fl. for ~~Sept~~ Octob. —

Leaves 3 to 4 inches long (linear filiform) ~~scape~~ frequently withered about the time of flowering; scape 4 to 8 inches high, and tube of the white flower nearly the same length. It grows one

Crinum Linn.

many places between Houston & Galveston
but ~~always~~ mostly solitary.

<u>Croton Lindheimeri</u> V annuus ~~caule erecto~~ stellato tomentosus, caule erecto ramoso; foliis longe petiolatis, ovato lanceolatis basi lata subrotundata acutis, sub-repando-denticulatis; floribus spicatis, subsessilibus, superioribus fœmineis paucis, superioribus masculis pluribus omnibus fœmineis tomentosis; — fol. masc. cal: 5 sepal; petal linearibus longe pilosis, 5. stam 10-12; basi lanuginosis; fl. fem. calice 6-8 ~~partito~~ sepalo; petalis inter sepalis alternantibus, linearibus, plerumque carentibus; — ovario ± disco glanduloso dentato (dentibus sepalis oppositis et cum ~~[illegible]~~ eis connatis) insidente; stylis ~~[illegible]~~ 3 bis profunde bifidis.

Texas; dry ~~[illegible]~~ plains, Prairies, Roadsides, Houston
4-5 feet high; ~~[illegible]~~ July — October.

<u>Polygonum texanum</u> vide Polygonae

Hitchcock 59
OII, 324

Croton Lindheimeri var glabratum Glotch
Croton Lindheimeri var glandulosum Glotch
Croton Lindheimeri var stellatum Glotch
Croton Lindheimeri var tomentosum Glotch
Lindheimer Texas
Houston Galveston
Herbarium Chas. Mohr

IV ~~Appendix~~ Notes on Lindheimer's Collection

February 1843

Solanum texense ♃ radice perenni; caule erecto ramoso stellato-tomentosum (herbaceo ~~pedali~~ (1–1½ pedali) foliis petiolatis, lanceolatis sinuato dentatis s. subintegris pedunculis elongatis ~~corymbosis~~ ~~racemosis~~ fructiferis deflexis; corolla violacea extus (ad nervos medianos) stellato pubescente; staminibus aequalibus; barba sulphurea!

Dry sterile places, roadsides, Houston Texas June – Sept.

Hypoxis erecta L. radice ~~bulbosa~~ fasciculata; caule basi bulbiformi, bulbo erecto; foliis planis graminei, scapo 2–3 floro duplo longioribus; bracteis numero florum, minutis scariosis; petalis oblongis s. ~~oblongo-~~ ovato, lanceolatis acutis, extensionibus apice barbatis; capsula subglobosa, perianthio ~~corolla~~ bis ter ve longiore persistente superata; seminibus in loculis singulis biserialibus sub senis

β. aestivalis foliis linearibus scapum sub-uniflorum aequantibus.

Common in dry clayey soil Missouri to Texas, in March till May.

β. in Texas in Prairies which had been burnt in Spring; flowering in July

Hypoxis horizontalis n. sp. ~~caule~~ radice fasciculata, caule basi bulbiformi bulbo ~~oblongo~~ horizontali, foliis planis graminei ~~et~~ scapo subuniflorum planiuscul longioribus bracteis binis, inferiore minuta scariosa persistente setacea, elongata herbacea; petalis lanceolat

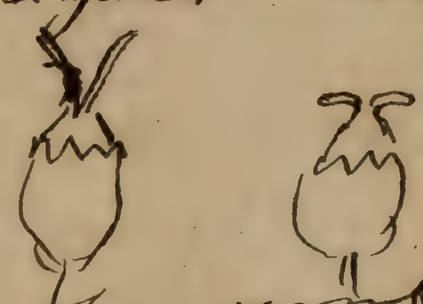
acutis exterioribus sparse pilosis. capsulae prismatica, trigona, perianthium persistens subaequante; seminibus in loculis singulis uniserialibus subquaternis,

In sandy soil along water courses; Texas, June & July. — Seeds as those of the common species covered with black, rough testa, but twice as large, though the flower is only half the size of the former.

The farinaceous bulb is the base of the stem which in the first species is erect, the new one growing on top of the bulb of last year, which is decomposed; in the second species the bulb is horizontal, or the stem at base adscendant, the new bulb grows out of the side of the old one and the stem (or leaves and scapes) out of the side of the new bulb. —

Cynosciadium pumilum April different from the C. pinnatum of Fot Gibson. (Flow: June) by the long divergent but not horizontally divaricate short styles — size, prominent many stems — time of flowering and few rays of umbella which is nearly without involucre. (not constant!) var

Astragalus trichocarpus (T. & Gr. sub. A. Nuttallianus) distinct from A. Nutt. by the shape & hairiness of involucrum legume, which is smooth & 2 carinate in A. Nutt. and much more curved; A. trich contains 7–10 seeds in A trich. St July woods acute flowers pale blue



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vide I

Ranunculus pusillus Poir. Missouri caule erecto ramoso glabro, foliis petiolatis, inferioribus ovatis denticulatis, superioribus linear lanceolatis basi petiolorum membranaceo dilatatis et bracteis ciliatis; petalis sepalis deciduis ovatis obtusis subaequantibus linear spathulatis subquinque, staminibus pluribus; carpellis subglobosis (laevibus obtusiusculis) in capitula ~~globosa~~ ~~collecta~~ dispositis.

Ranunculus texensis n. sp. Texas caule erecto, ramosissimo, basi hispido; foliis petiolatis, inferioribus ovatis (subrondatis) denticulatis, superioribus linear lanceolatis, basi petiolorum membranaceo dilatatis et bracteis ciliatis, petalis 5 sepalis deciduis ovatis obtusis longe superantibus spathulato-oblongis staminibus pluribus; carpellis subglobosis, acutis ~~rugulosis~~ ~~laevibus~~ minutim tuberculosis; in capitula globosa dispositis.

Ranunculus Lindheimeri n. sp. Texas caule erecto ramoso glabro, foliis petiolatis inferioribus ovatis subdenticulatis superioribus linear-lanceolatis basi petiolorum membranaceo-dilatatis et bracteis subsetaceis ciliatis; petalis sub 5 linear spathulatis sepalis 3-5 ovatis obtusis patentibus aequantibus; staminibus 5-10 carpellis compressis obtusiusculis tuberculosis; in capitulum globosum dispositis.

Ranunculus trachycarpus n. sp. Texas caule erecto ramoso, glabro, foliis petiolatis inferioribus obtuse ovatis obtusis ~~denticulatis~~ superioribus lanceolatis et lanceolato linearibus denticulatis; basi petiolorum membranaceo dilatatis et bracteis subsetaceis ciliatis, ~~petalis sub 5~~ sepalis ovatis 3-4 ~~sub~~ reflexis; petalis 3-5 linear spathulatis sepalis minimis; staminibus 5-10 carpellis compressis obtusis, tuberculosis in capitulum ovatum s. cylindricum congestis.

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Petalostemon pilosus T & G. & glabrum Rusby, Galveston

May 1843. Stem branched, smooth; only a few scattered hairs on the leaflets, branches striate, smooth, glandular, pilose & smooth, margin pubescent, leaflet 4–7–8 pairs.

Helianthus occidentalis T & G. but leaves not exactly opposite, always abruptly tapering into a petiole; — scales of involucre lanceolate acuminate (not very narrow) and corolla always villous at base; — pappus 3 toothed, middle tooth long awned, hispidly scabrous.

May 1843. — Saline sandy loam soil

1½ — 2½ feet high, much branched. —

Myosotis laxa Lehm. n. sp. vide paper on Myosotis

~~April 1844~~

Gerardia spiciflora n. sp. vide paper on Gerardia

Sagina decumbens T & G. quite distinct from the perennial, alpine Spergula saginoides, which is adduced as a synonym by Torr. & Gr. —

S. Texas

Cakile Galveston May 1843

fol. simplice dentato — pinnatifidis, in racemis brevibus paucifloris fl. albis; minoribus; antheris filamenta superantibus, ensiformes, inferiori multo majore, compressa 3 carinata, supra insulque —

A marked form from the latter has pinnatifid leaves with narrow subdentate segments; long racemes of somewhat larger purple flowers, and smaller fruit with the upper segment 1 carinate, rarely

1. Lindheimer's Collection 1843.

35. Psoralea ~~rhombifolia~~ Lindheimerii E & G. ~~sparingly pubescent,~~ P. eriantissa
subpubescens, radice perenni, filiformi
filipendula, ~~foliis~~ ramis plurimis elongatis
decumbentibus s. adscendentibus, stipulis ovatis foliis
3 foliatis, foliolis rhombeo-ovatis, petiolo
brevioribus, sparse glandulosis, pedunculis petiolum
~~foli brevioribus~~ s. ea aequantibus s. brevioribus
spicis capitatis paucis floris (3-6)
bracteis ovatis acuminatis; calycis hirsuti
dentibus lanceolatis tubo aequantibus
inferior longiore; alis unidentatis carina
multo superantibus, vex. ~~longiore~~ subaequantibus
ovario glabro, stylo pubescente; ~~capulae~~ legumine
suborbiculato ~~longe rostrato~~ rostro longe
exserto, ~~parte~~ ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ transversim ~~de~~ membranam
dehiscente, parte superiore strigoso pubescente
inferiore ~~glabro~~ laevi, subrugoso
~~[illegible]~~ orbiculato, compresso.

Sandy soil dry Plains of Galveston Island
May 1843. ♃ Root filiform often 2-3 feet or more
long; forms elongated tubers as soon
as it reaches ~~[illegible]~~ moist soil.
~~Corolla purple~~ Stems from 6 inches to
1 or 2 feet long; lowest leaflets suborbicular
subcordate at base; upper ones ~~[illegible]~~
the upper most rather longer than the petiole,
but peduncles never longer than the
petioles. Corolla purplish blue. Dark

Psoralea rhombifolia T. & G. subpubescens,
radice perenni filiformi, caulibus elongatis
decumbentibus; stipulis ovatis acuminatis
foliis trifoliatis, foliolis rhombeo-ovatis
inferioribus petiolis brevioribus superioribus
subsessilibus, minutissime sub glandulosis;
pedunculis foliis longioribus demum recurvis, spicis
ovatis s. capitatis, paucifloris, (4-10)
bracteis ovatis acuminatis calycis hirsuti
dentibus lanceolatis, tubo ~~aequ~~ brevioribus,

acuminatis
4 to 5 ant

inferiore an acquante; legumen ovato ~~longe rostrato~~; rostro ~~elongato~~ ~~uncinato~~ ~~inflexo~~ (hamato?) longe exserto ornato; parte inferiore laevi, superiore ~~pilosiusculo~~ pubescente; semina oblonga, compressa.

Dry Prairies east of Brazos River June 1843. — well distinguished by the preceding species by the elongated pedunc. larger (generally more) flowers, (which are of similar struct. & colour), which are frequently found in several distinct imperfect verticills; by the generally narrower leaves, the upper ones being nearly sessile; and by the oblong or oval seed, which is perfectly obvolute in the other species. — The legumes of this species are also transversely dehiscent — but I have not seen ripe ones. —

36 Psoralea obtusiloba Torr. ~~Vel glandulosa~~ and glandular, ~~Pamarginata~~, glabrous on the upper side and pubescent below, calyx & legume glandular. + Very near Ps. ~~glandulosa~~ floribunda Torr.; the specimens from Illinois, Lowing & Arkansas examined by me have all glandular leaves, a glandular calyx & ~~glandular~~ legume (not glandular Torr & Gr. I. 300). ~~Both are~~ distinguishable from Ps. obtusiloba by the narrower, acute, not obtuse or emarginate leaflets; thinner pubescence on the lower surface of the leaves ~~and~~ smaller stipules ~~and~~ ~~the broad~~ narrower and more acute calyx teeth and the light or yellowish brown seeds (~~with~~ Ps. obt., dark or blackish brown). —

obtuse

Dry prairies east of the Brazos, Texas nearly past flowering by the end of June.

It is

34. Indigofera Leptosepala. Nutt.

Clayey soil dry prairies; May to July Houston to the Brazos, — flowers beautifully marbled. — Root thick lignescens.

33 Tephrosia Virginiana Pers. T. Holosericea Torr & Gr.

32. Teph. nuberychoides Nutt. β. argentea —

Pubescens always white or silvery; leaves mostly petiolate never subsessile leaflets cuneate retuse or emarginate; on both sides strongly ribbed; above smooth below silvery pubescent; stipules somewhat persistent; calyx either with woolly teeth equal to the tube ~~woolly~~ or with shorter strigose teeth (Specimens from Houston Brazos) flowers perfectly white, soon turning to pale scarlet, Vexillum green with a purple centre and base. Flowers on the Prairies from Houston to the Brazos from the End of April to August. The specimens from Houston with the woolly calyx grow in sterile sandy soil and flowered earlier; those from the Brazos in fertile Prairies, later.

31 Daubentonia longifolia DC.

28. Vigna glabra Sav.? pubescent calyx deep leaflets broadly oval 4 toothed; — legume compressed, smooth flowers as large as pea — beans; jaune dirty yellow tomlose, black ~~with~~ pubescent with whitish hairs; ~~seed~~ seed black with white hilum. Thickets near fresh water; Houston, Texas, Jun — July.

β. angustifolia. leaflets from ovate-lanceolate, to narrowly lanceolate and even linear, near brackish water on the coast of Galveston bay; Texas, July & August.

38 Amorpha glabra Desf. DC. Prod. II, 256 (July) with the same as A. Carolinian Lour. I also Flor. I, 305 accords better with Desfontaines Character ~~leaflets distant from the stem~~ "foliolis infimis arcuate distantibus". The two upper teeth of the calyx are short and usually obtuse the three lower ones are sometimes longer, and acute, the lowest one is the longest and appears accumulate

Wet Prairies — & open woods & wet places near Houston. April — Mr L. collected it also on brackish Prairies near the coast in July

37 Amorpha paniculata Torr & Gr. A large robustly plant. 6–9 feet high. Spikes ~~from~~ 12 inches long. In thickets near brackish waters; Galveston bay June – July — and near fresh water west of the Brazos, in July.

whole panicle sometimes 1½ foot in diameter

42 Petalostemon violaceum Mich. P. pubescens. in no other way distinguishable from the glabrous form of the Northwestern States. ~~Calyx obovate spathulate concave villous, with a smooth aminate pay~~

41. Petalostemon phleoides Torr. P. microphyllum. on sandy elevations in the Prairies west of the Brazos, Apr. in July.

~~We have seen another this variety~~ remarkable through its grayish appearance and very small leaflets. — We have received another variety of this apparently very variable ~~pl~~ species, collected on Prairies on Galveston Island in May. it is perfectly ~~smooth, or~~ glabrous except a few scattered hairs on the obovate or oblong linear obtuse leaflets (4–7 pairs), the stem is branched from the base; branches smooth glandular, margin of calyx pubescent.

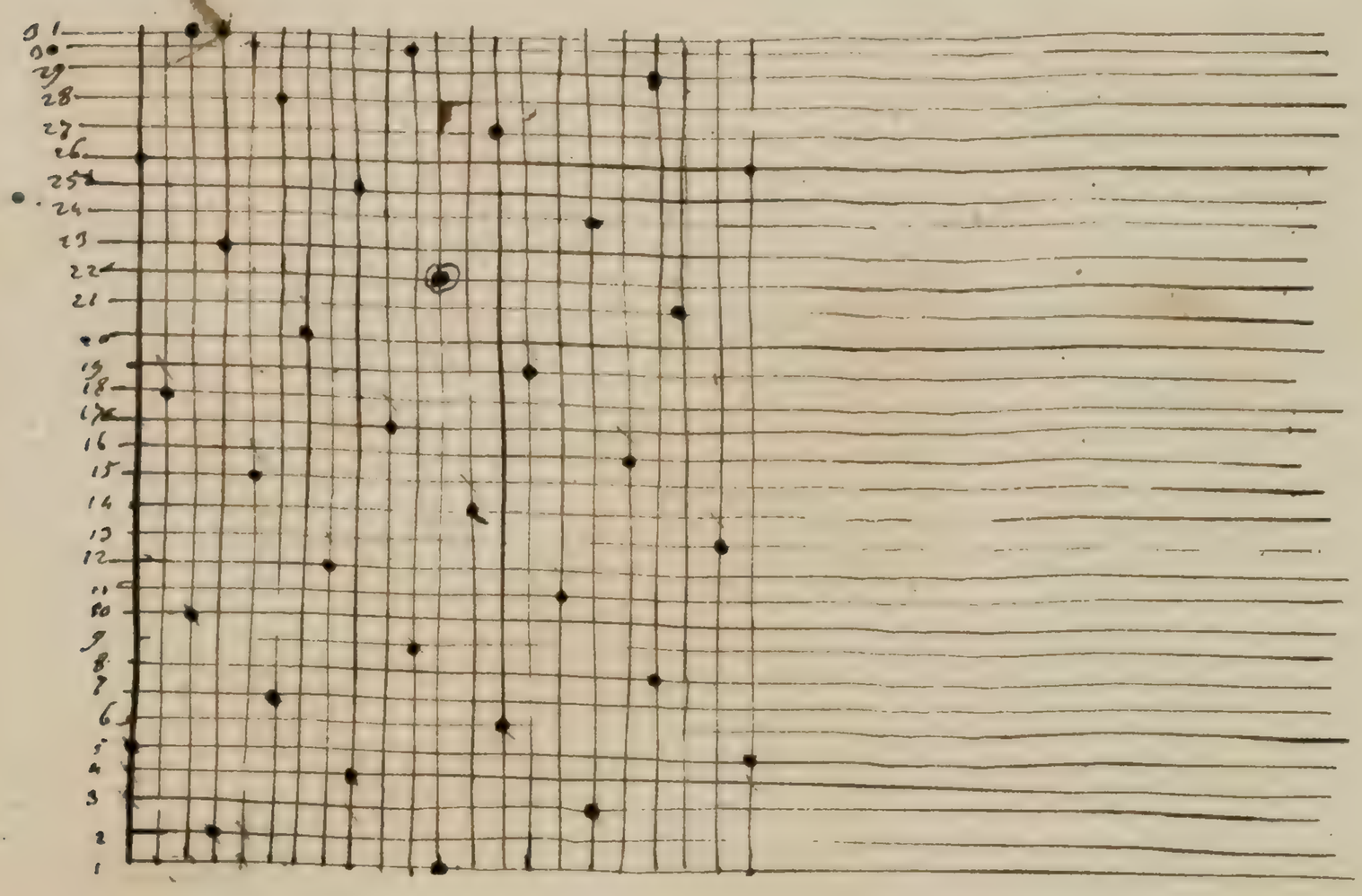
24. Lida Lindheimeri stellato-pubens, ramosissima, caule erecto, ~~pubescente~~ foliis oblongo linearibus, basi subrotundatis, serratis, ~~stellato pubescentibus~~, petiolis brevibus, stipulas lanceolato-linearis subaequantibus; pedunculis foliis aequantibus subsequentibus; calycibus hemisphaericis segmentis late ovatis acuminatis; capsulis 10–12; carunculo rugosis, supra pubescentibus, breviter birostratis

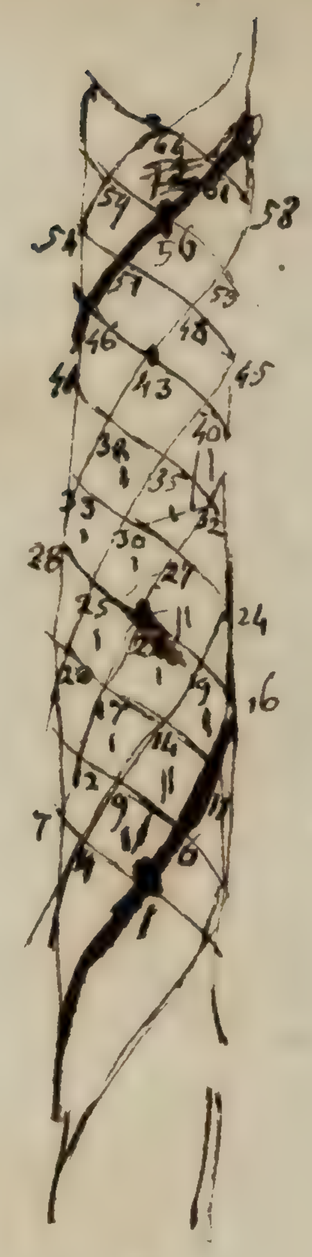
Petalostemon obovatum.

Stelly & Clift on & Mackys:

1. 4. 7. 10. 13. 16. 19. 22. 25. 28. 31. 34. 37. 40. 43. 46. 49

1. 6. 11. 16. 21. 26. 31 36 41 46. 51. 56 61 66





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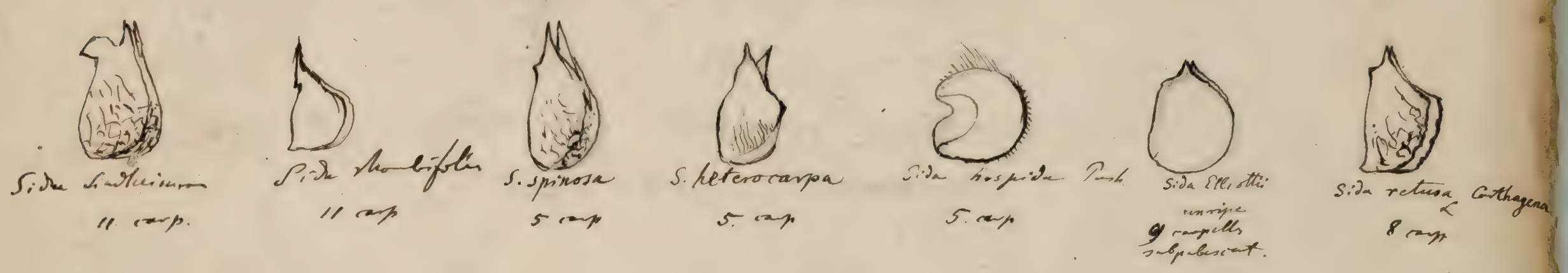
2. Lindheimer Collection 1843

24. Sida Lindheimeri Gray:

Bannies east of the Bayou in June

⊙? — Stem about 2 feet high, much branched, branches elongated, leaves 1–2 inches long 1–4 lines wide, petiolus, frequently longer than the leaves articulate about 3/4 inch below the fruit. flowers and fruit 1/4 larger than in S. rhombifolia. Apparently between this and S. filiformis Torr, but easily distinguishable from both by the linear leaves ~~the large~~ and the carpels which ~~have 2 much shorter points are~~ much shorter horns and are carinose and reticulate (not smooth) on the back and sides and pubescent on top; besides the two ~~rather short~~ erect horns they have a point horizontally ~~which is~~ turned inward. seed about twice as large as in S. rhombifolia. —



Sida heterocarpa stellato-pubescens, caule erecto, ramoso, foliis ~~oblongo linearibus, superioribus~~ ovatis, ~~obtusis~~ ~~dentatis~~ crenato ~~serratis~~ inferioribus ~~basi~~ lanceolatis, superioribus linearibus, petiolis brevibus, stipulis setaceis, superantibus, pedunculis solitariis s. in axillis foliorum fasciculatis petiolo brevioribus, carpellis 5 nigris birostratis, apice pubescentibus tetanibus tenuiter rugulosis, dorso membrana tenui evanescente elausis. tuberculo sub basi foliorum subspinoso

Together with Sida spinosa roadsides, wastes Houston Texas, August September (probably through the whole summer and annual). Very near S. spinosa, distinguished by the narrower more

elongated Dentate crenate, not serrate leaves — principally by the black (not light brown) capsules, which are much smaller than in S. spinosa and ~~are remote without~~ Carunosa reticulate) on the sides (not have a prominent point on the back which is wanting in S. spinosa; the two broad ovate acuminate divaricate beaks, and do not separate easily, but let the seed escape through a hole at the base of back, which is originally covered by an evanescent whitish membrane.

Sida hispida Rush — probably — certainly not of Elliot 5 obtuse hairy carpels, uniform bivalved; valves separating easily — petioles as long as peduncles, calyx filiform — (Elliots plant has sessile flowers) — Leaves spinulose or entire — serrate; calyx much enlarged after flowering, generally reddish

22 Linum Berendieri Hook, certainly a distinct species, not a variety of L. rigidum as supposed by Torr & Gr flora I, 204 L. Berendieri Hook. viride, ~~many stems from the long~~ multicaule, caulibus plumbum humilibus erectis, adscendentibus, ramosis; foliis lineari lanceolatis ~~acuminatis~~ ~~uni nervis~~ margine laceribus, sepalis lanceolatis acuminatis 3 nervis glandulosociliatis stylis ultra medium connatis.

In the Gunnison Sandy Lytton Downs of Galveston Road long filiform is land common, April & May perennial? The flowers are larger than in any

oth species of this section petals yellow with a brown red spot at base.

The distinctive characters of L. rigida are: ~~caule erecto~~ L. rigida. Pursh! glauca caule erecto simplici apice corymboso paniculato; foliis linearibus 3 nerviis nervis lateralibus submarginalibus margine scabris, stylis distinctis. —

20 Silene antirrhina β. subglabra
stem smooth; ~~lower~~ lower leaves ciliate at base, ~~upper ones~~ scabrous on the margin, upper ones with smooth margins

21. Silene antirrhina γ. laevigata
stem and leaves smooth with entire smooth margins
Gulwart Island, near thickets! April

The common form has stems scabrous at base, usually viscid on the upper internodes ~~&~~ all the leaves ciliate scabrous on the margin and the lower ones also entirely scabrous on both surfaces; it grows together with the foregoing varieties

17 Hypericum gymnanthum γ; annuum caule simplici erecto, quadrangulo foliis e basi cordata ovatis, amplexicaulibus 5-7 nerviis, pallide viridi-pruinosis; cymis dichotome pedunculatis, aphyllis laxiflora, bracteis subulatis, floribus pedicellatis, sepalis lanceolatis acutis petalis superantibus staminibus 10-12, capsula ovata-conica calycem vix superante, unilocularis seminibus flavis cylindricis longitudinaliter costatis. —

Clayey soil, in Pinewoods, near Houston, June. Very near H. mutilum but apparently well distinguishable by the (naked eye) erect, simple stem, distant leaves, &c.

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yellow

the ~~acut~~ (not ~~blunt~~ obtuse) sepals, and the smaller more evidently ~~costa~~ ribbed ~~seed~~ yellow seeds; in H mutilum they are larger ~~and~~ somewhat brownish and hardly ribbed. — The leaves of H. mutil are usuall oval or oblong, but sometimes they are also cordate at base. — Do the specimens of H. mutilum from Maryland and Arkansas mentioned in Torr & Gr. I. 165 belong here? —

15. Helianthemum ~~dipetalum~~ Nutt. H. polifolium Torr & Gr. not Dec fl. franc IV. 823. Dc prod I, 283. perhaps the name of H. filipes or H. heterandrum would be better.

13. Krameria lanceolata Torr. Prof. A. Braun has suggested that the natural affinity ~~with~~ of Krameriae is with Leguminosae rather than with Polygalaceae. ~~This~~ ~~Dr Thurber~~ At least in this species the two lateral glandulous petals ~~are~~ cover in aestivation the stamens, they cannot therefore belong to ~~an~~ ~~inner~~ interior circle. The ovary is uni-carpellary (against the type of Polygalaceae) and one sided, like the ~~fruit of~~ ovary of Leguminosae, we find also ~~many~~ leguminous plants which (~~show~~ imperfectly) be called ovaries; but the two cells are always one on ~~the side~~ of the other not before the other, as in Polygala! — as in Krameria

after carefully examining ~~the number of~~ flowers of different species of this genus

Krameria is then a pentandrous leguminosa where the lowest fifth ~~filament~~ stamen is mostly wanting, but sometimes in K. lanceolata we find on its place a sterile filament; ~~the lateral sessile petals~~ ex: it corresponds with the free 10th stamen of ~~most~~ Papilionaceae, as the 4 others (which are united in K lanceolata)

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Heimsbury Jamaica

holl. 10 pieces $4.—

20 frs Louis Philippe $3.85

Do others . 3.80

German 7 pieces . 7.85

Myrtle 37 c.

capsule

side top seed

Mature? no capsules, middle stamens

calyx very large, naked, not calycled.

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cm
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Pat. to Sept. 13.

	July 8.	$	100.—
Pat.	65 days	"	1.08.
	July 22	"	110—
Pat.	61 days	"	—— 92
	July 25.	"	120.—
Pat.	48 days	"	—— 96.
	Aug 15	"	130—
Pat.	28 days	"	—— 60
	Aug 25	"	90.—
Pat.	18 days	"	—— 27.
	Sept 5	"	60.—
Pat.	8 days	"	—— 08.
		$	653.91

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~~corresponding with~~ are analogous to the ~~stamen~~ tube formed by the nine connected ~~stamens~~ filaments. The lateral sessile petals correspond with the ~~petals~~ carina, and the three others with are connected their claws to the alae and carina. The five sepals alternate with them as the stamens alternate with the petals. — The fruit ~~corresp~~ ~~exactly~~ with the fruit of an Onobrychis. All those which I have examined are one seeded when ripe.

The root of Kramria is ~~and~~ Lanceolate Ligneous and very long, of dark red colour and has the same chemical & medicinal properties as the ~~fruit~~ ~~XI~~ Ratanha of the Shops. As the plant appears to be common in some parts of Texas, it might become a valuable plant for ~~export~~ collection & export. —

11. Polygala leptorhaulis T&G. all the specimens have (a few or ~~more or less~~) elongated branches term & by the side some bearings may 15 to 18 spikes. spikes Capsules wide, with glands along the dissepiment on the back of the valves

Polanisia gravcolens & trachysperma may be distinct species if the seeds are really constantly different. But I find, the common form of St Louis corresponds exactly with P. gravcolens; sepals acute or obtuse filaments 12 about the length of the petals style very short — seeds finely rugulose or reticulate, some with indistinct tubercles.

2. Specimens collected near Fort Gibson are in every respect similar, but sepals acuminate and ovary, by abortion wanting;

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3. Specimens from the Hot Springs Arkansas and from the Upper Missouri (where they has been collected together with the common form) have acute or acuminate sepals as long as the claws of the petals, its filaments not twice as long as the ~~ovary~~ petals and ~~slightly~~ half the length of the ovary.

4. Specimens from Texas have ~~some~~ ~~of the~~ merely the 4 or 5 leaflets acuminate sepals shorter than the claws of the ~~petals~~, 14–16 filaments about twice as long as the ~~petals~~ x style rather than ~~as long as the~~ ovary. — Ripe Seeds not seen. Unripe ones not differing from S. grac. of St Louis. —

+ emarginate and frequently denticulate

5. Clematis ~~denticulata~~ caule herbaceo, glabro erecto s. flexuoso, foliis inferioribus ~~integris~~ lanceolatis, superioribus pinnatis pinnis lanceolatis s. lanceolato-linearibus raro trilobis s. tripartitis; ~~flore~~ pedunculo terminali elongato; flore campanulato, lobis ~~[illegible]~~ patentibus dilatatis, obtuse acuminatis, margine crispatis denticulatis; carpellis

subsimplicibus glabris membranaceis

April and May in Wet Prairies and woods, x in the Prairies ~~it is~~ perfectly erect simple and 10–15 inches high ~~[illegible]~~ in woods, ~~climbing~~ shrubby il grows 1½ to 2 feet high and climbs a little by the petioles ~~the petioles~~ flowers variable in size; 1½ to 2½ or even 3 inches in diameter; tube short, lobes spreading; ~~[illegible]~~ carpels not seen in. It appears to be

x Root ligneous with many fasciculate fleshy fibres, stems

Leaves from simple to decompound;

nearly related with C. cylindrica Sims.

1. Ranunculus ~~trachycarpus~~ texensis nearly related with the following and with R. pusillus. We will therefore give the diagnoses of all of them:

Ranunculus pusillus Poir caule florido subsimoso glabro; foliis petiolatis, inferioribus ovatis; denticulatis, superioribus lineari lanceolatis cum petiolorum membranaceo-dilatata et bracteis ciliatis; petalis 5 sub-5 lineari spathulatis ~~oblongis~~, sepalis ~~deciduis~~ obtusa deciduis subaequantibus; staminibus pluribus; capillis subglobosis obtusiusculis laevibus in capitulum globosum congestis.

Habitat: Vel planus maxi 7 pondo

№ 1 Ranunculus texensis caule erecto ramosissimo, basi hispido; foliis petiolatis inferioribus ovatis subiondatis, denticulatis superioribus lineari lanceolatis, basi petiolorum membranaceo-dilatata et bracteis ciliatis; petalis 5 spathulato oblongis sepalis ~~deciduis~~ ovato obtusis deciduis longe superantibus; staminibus plurimis; capillis subglobosis ovatis, minutim tuberculosis in capitulum globosum congestis.

Texas near Houston many of ponds — woods — prairies, April.

2. Ranunculus trachycarpus caule erecto ramoso glabro; foliis petiolatis inferioribus orbiculato ovatis obtusis ~~subdenticulatis~~ integris, superioribus lanceolatis et lineari lanceolatis denticulatis basi petiolorum membranaceo-dilatata et bracteis subciliatis; sepalis 3-4 ovatis ~~3-4~~ reflexis, petalis 3-5 minimis lineari spathulatis superantibus; staminibus 5-10; capillis compressis obtusis tuberculosis in capitulum ~~globosum~~ cylindricum congestis

No 3d

β. argentifolius; foliis ovato-lanceolatis, ? Crear lanceolatus

γ ? Ludwigii foliis inferioribus ovatis; sepalis 3–5 ovatis obtusis petalis ~~subtris~~ Crear – spatheulatis acquantibus; carpellis compressis, obtusiusculis, tuberculosis in capitulum globosum congestis.

Texas on ponds near Houston in March and April (α); very common on margin of (saline ?) ponds on Galveston Island April & May (β γ.)

γ. may be a distinct species but so far I can find no essential difference but in the globose head of carpells and neither that is constant remains to be examined!

---

51. Vrolliia Tarnesiana W & Arn

This is nearly the only shrub on Galveston Island; reaches a height of 4 to 7 feet – and forms considerable thickets. The time of flowering is very short about the end of April or beginning of May (in late seasons). Flowers odorous. An indigenous plant

Ph. C. Mitchell by indigen ?

49. Acacia hirta Nutt. Stem petioles peduncles and pinnules densely soft or cinescently hirsute with spreading hairs.

50. β. glabrior nearly ~~smooth~~ glabrous or sparsely hirsute with short with adpressed hairs.

Open dry woods near Houston May & June – frequently again in September. We may remark here that many ~~plants~~ species

which have ~~fr~~ with north only a short flowering season, ~~have~~ bear in Texas bear flowers ~~through~~ the whole summer and ~~others~~ many others flower a second time after the usual rains of September have revived the vegetation. August 2

48 Aeschynomene lutea Lean. calyx 5 toothed, teeth ciliate descending, lobes glabrous or ciliate; petals 5 united at base, twice as long as calyx; stamens 10, twice as long as petals; ovary a little hairy top; style rather longer than the stamens leaflets minutely reticulated with large meshes — stipules lanceolate. sometimes only observed or very indistinctly 3 nerved stipes of Peguina about 2–3 times long

Desmanthus belonging to first section pag. 402 perhaps the same as D. lacustris. but it is not floating. lower part of stem like Aeschynomene lutea covered with a spongy bark, light brown. sterile flowers without Anthers!

I have two forms: 1. collected near Houston Sept 1842 prostrate.
~~leaves~~ pinnae 2–4 pairs, leaflets 30 to 50, linear oblong 1 nerved, ciliate; peduncles rather shorter than leaves; x stipules ovate ~~long~~ setaceously acuminate, scarcely heads globose, about 12 flowered fl. sessile bracts glabrous; calyx 5 lobes, glabrous; lobes lanceolate; petals united to the middle, ~~a little~~ longer than the calyx. leg. ~~obtuse~~ stipitate; stipes about as long as the petals more hairy

2. near Houston June 1843; leaves 2–3 pairs. leaflets 25 to 50; linear oblong, more ciliate and hairy on the upper part of the lower side back stipules like the other; bracts and calyx teeth ciliate; (flowers about 15 in a rather oval head;) pods a legume like 1

probably a hairier variety of 1.

Darlington illin.

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47. Mimosa strigillosa Talpa

hard clayey soil, prairies, and frequently in the woods, near Houston April – June only 4 minute, emarginate with 4 indistinct teeth. 4 ~~white~~ petals united above the middle; 8 stamens. – heads in our specimens always ~~ellipt~~ oblong.

Parkinsonia L. — Nicolletia n. gen. nearly related with Caesalpinia L. and Poinciana L.

Calycis sepala 5 subaequalia, basi in cupulam subpersistentem coalita. Petala 5 inaequalia unguiculata, superiore majore. Stamina 10, filamentis basi dilatatis, ~~villosis~~ hirsutis. Stylus ~~longe~~ filiformis. Legumen inerme compressum (bivalve?) ~~polyspermum~~ (?). Semina ~~oblonga~~ transverse oblonga compressa, endopleura in aqua ~~gelati~~ gelatinosa, cotyledonibus planis plumula minima?

A small prickly tree, with abruptly pinnate much elongated leaves, and racemose flowers.

P. aculeata L. — N. insignis: ~~foliis pinnatis~~ glabra aculeis ~~sparsis~~ simplicibus, ternis ad basin petiolorum; foliis pinnatis, rhachi plurimis (pleurae) marginata longissima, foliolis 80–150 oblongo linearibus obtusis, ~~brevissime~~ petiolulatis mucronulatis versus apicem ~~minoribus~~ decrescentibus, – racemis simplicibus, petiolis sub flore articulatis longitudine albastris sepalis glabris obtusis, petalo inferiore ~~superiore orbiculato~~ lateralibus late ovatis, in ungue breve attenuatis, superiore majore orbiculato basi cordato appendiculato; staminibus petalis brevioribus, ovario sparsim hirsuto stamina aequante, stylo filiformi brevior.

A beautiful ornamental tree,

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~~from west of the~~
Cultivated on the Brazos as an ornamental tree; seeds from the Nueces, southwest Texas. In three years it grew from seeds 15 feet high and 3 inches thick; it makes a most striking impression with its gracefully hanging boughs and slender ~~leaves~~ waving leaves; it flowers through the whole summer, flowers yellow, about 1 inch in diameter about 10 or 12 in one raceme; legume elongated, acute at both ends but not stipitate; many seeded? ~~at least~~ with many ovules. Leaves from 8–16 inches long

We dedicate this splendid genus to our late lamented friend J. N. Nicollet a native of Savoy, Professor at the Observatory of Paris, and since 1833 ~~[illegible]~~ ~~resided~~ travelled in the U. States, explored in a geographical, geological & botanical point of view ethnographical and in the last years for the U.S. government ~~explored the~~ ~~[illegible]~~ Southwest, Western and north west regions of this continent; discovered ~~the true sources of the Mississippi~~; ~~[illegible]~~ made the country between Miss. & Missouri ~~the special field of his studies~~. ~~in [illegible]~~ He died ~~last September 1843~~. ~~He [illegible] his~~ ~~had a friend in every one who knew him~~ ~~and he~~ died (~~last~~ 11 Sept 1843) regretted by all who knew him, and they all were his friends, and much too soon for science, leaving a great part of his proposed labors ~~the~~ in an unfinished state.

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3 ~~Tiffs Tifs~~

Baptisia Cacophaea Nutt

α. villosa; stem ~~& branches~~ stout villous pubescent, bracts & stipules large foliaceous acutish, leaflets oblanceolate ~~villous~~ pubescent; flowers large. — Missouri & Illinois. Apr May

or the

β. laevigata, stem ~~& branches~~ stout glabrous, glaucous. bracts & stipules large, foliaceous, obtuse or acutish; leaflets rhombic obovate nearly smooth, margin ciliate; flowers large.

Texas, Drummond Marshall Spr.

γ. bractéolata stem ~~& branches~~ glabrous, glaucous, ~~[illegible]~~ lanceolate smaller bracts ovate acuminate small, leaflets smooth or sprinkled with a few hairs; racème few flowered, flowers smaller.

more slender, ~~[illegible]~~

broadly obovate

Downs of Galveston island, April

45. Astragalus Nuttallianus DC. β. trichocarpus Torr. it grows together with A. Nuttallianus and with the following species, A. leptocarpus on Galveston island April 11. but the last one grows on the quicksand of the downs towards the sea. A. Nuttallianus in Prairies in the interior of the island, and β. trichocarpus only on soil composed of fragments of shells on the coast of the island towards the bay with Gaillardia pinta, Scutellaria Lindheimeri etc.

with Eglates Cakile Erysimum strigosum Oenothera Drummondii, Convolvulus scottii

This plant may prove a good distinguishing for Nuttallianus ~~[illegible]~~ much more species, ~~[illegible]~~ by the curved, hairy shorter legumes, silver seeds, the ovul, not retuse or emarginate

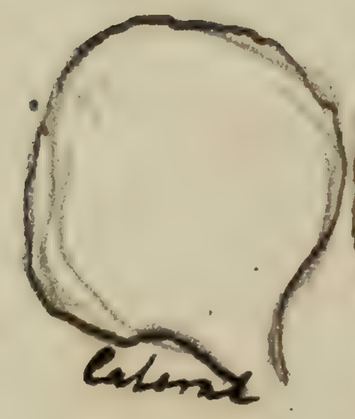
~~leaflets~~, ~~[illegible]~~

Parkinsonia aculeata Lin

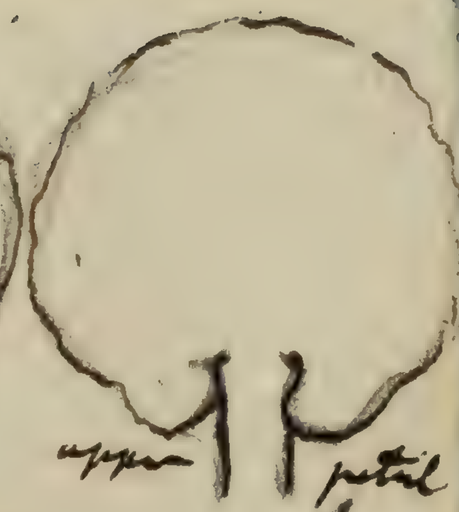
flower bud

without calyx

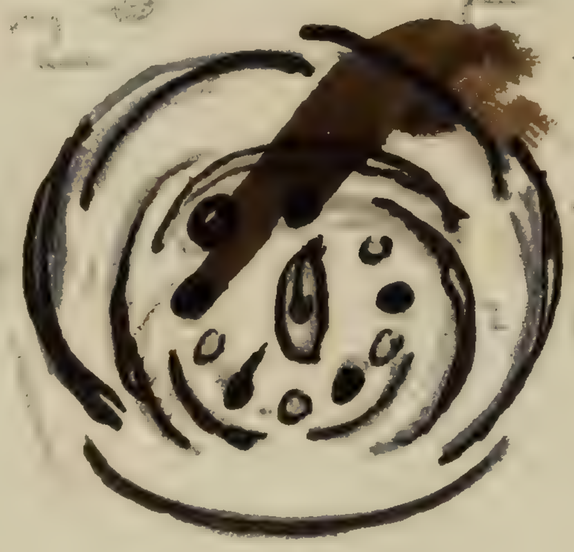
lowest



lateral



upper petal

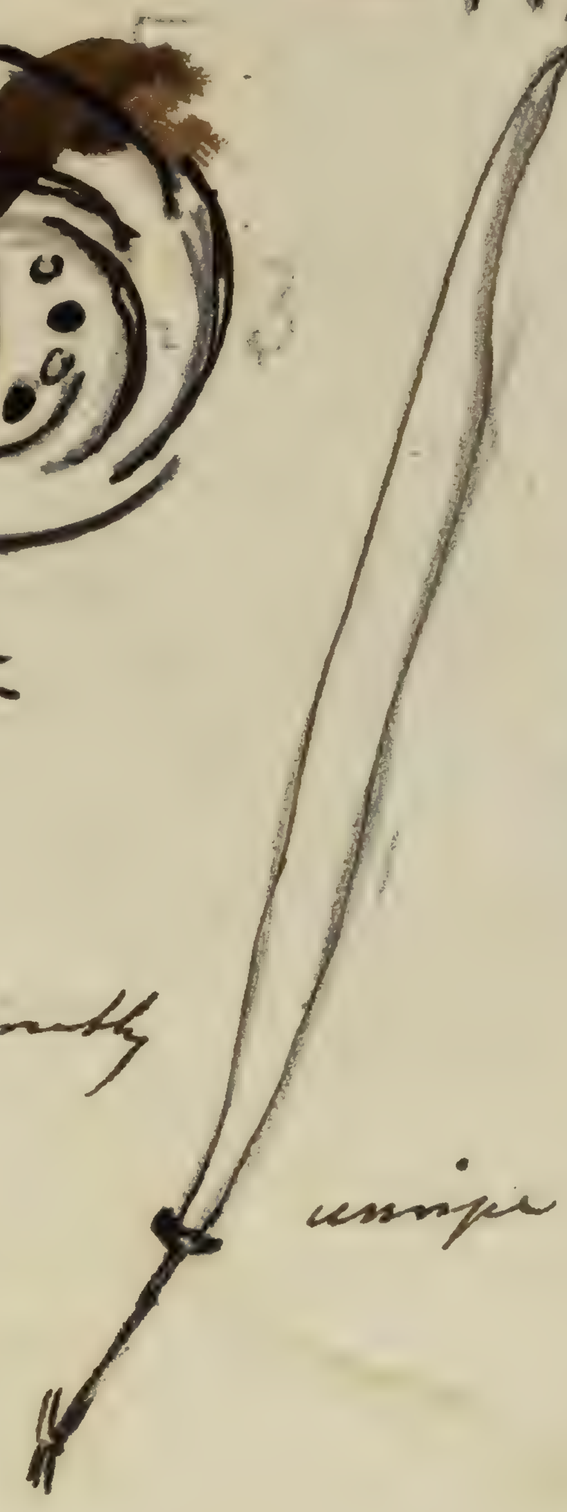


stamens inserted on a disc

alternate one a little shorter

leaflets 20 - 150

∴ the flowers the 4 lateral petals are apparently more equal.



unique

seed without the coats. transversely oblong inner coat horny, becoming glutinous in water

plumula with gorsh

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5. Lindheimer's Collections 1843.

leaflets. Seeds similar about 7 or 8 in each cell; in A. Nuttalli we count 10 to 13 in each cell. — and A. leptocarpus has also 10 to 12 in each cell. —

Galium pinetorum? Gebüsch an der über Torzmüsch nach d. Gipfel – Ende November fin

leaves smaller, narrower, only the lower leaves indistinctly 3 nerved; acute; flowers greenish; habit more of Galium brachiatum, but always 4 leaved. apparently intermediate between Galium pilosum & G. triflorum

63. Gymnosiadium pinnatum DC. B. pumilum.

distinct from the common erect form which is usually 12 to 20 inches high by its ~~tow~~ ~~gr~~ many ~~clear~~ low ~~stems~~ diffuse stems 4 to 8 inches high. * the styles appear to be longer too and less divaricate

* umbells with 4–5 rays only ~~[illegible]~~ and very few involucral leaves or none

Common on Prairies; Galveston, April & May

62 Lonicera corvetae

52. Lythrum foliosum n. sp. — radice perenni, caule erecto ramoso, quadrangulato, angulis angustissime alatis, foliis (glaberrimis, margine integris) lanceolatis sessilibus coriaceis; ~~fol. floribus~~ bracteolis pedunculum breve aequantibus s. superantibus; calyce profunde 12-striato dentibus ~~alternis~~ exterioribus longioribus erectis.

~~Texas~~ Wet Prairies, Ditches etc. ~~May~~ flowers to the Bayou May — July

leaves always crowded at both ends and clasp sessile, ~~the flowers are~~ flowers 6 ends, some 7–8 ends two varieties may be distinguished,

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α. stamineum, filaments as long as the ~~flowers~~ ~~style~~ petals; style not exceeding the calyx. The petals apparently larger and darker coloured, ovary frequently sterile?

β. stylosum, filaments as long as calyx style as long or longer than the petals; petals apparently little smaller and paler.

~~α~~ ~~γ~~ alatum Pursh is distinguished by the ~~leaves~~ rough margin of the membranous leaves ~~the stip.~~ bracteoles shorter than the peduncle, and the outer teeth or processes of the calyx being at length recurved. — It is probable that both varieties of the ~~other~~ species are found also in Lythr. alatum; but amongst about 12 specimens at present at my disposal, I can only find such with long filaments and short style.

Is L. foliosa the same as L. lanceolata and must that name be restored? the Ill. L. ~~[illegible]~~ alatum must be referred to our α of Torr. & Gr. I, 480, and has always subordinate leaves, and our β. & γ. belong to our species. —

38. Ludwigia intermedia n. sp. ∨ caule erecto ramoso angulato; foliis linearibus lanceolatis acutis; floribus brevissime petiolatis; bracteolis subulatis; lobis calycis lanceolatis acuminatis, tubum aequantibus, petalis brevioribus; capsula oblongo-turbinata dimidio brevioribus, adpresse pubescens.

Dry Prairies, roadsides, Houston June to Sept.; Also Alabama, (August) (Mr Buckley).

This species is intermediate between ~~both~~ sections X and XX (Torr. & Gr. fl. I, 522 flowers nearly sessile, smaller than

L. alternifolia and the two following; but a distinct 4 lobed stylopodium. — Very near L. linearis but distinguished by the short strigose pubescence, the many branched ~~very~~ many angled stems, want of stolons; by the want of the two scaleous glands at the base of the leaves; by the short pedicell, the larger bracts, longer lanceolate calyx & lobes which give the flowerhead a long acuminate appearance (that of L. linearis being barely acute) by the larger (yellow) ~~flowers~~ petals, by the small seeds which are only half as large as in L. linearis. —

~~Flowers~~

Ocroth rhombipetal? or bifarous?
my specimen for Arkansas silkly — etc

6. Gaura Lindheimeri: erecta hirsuta, s. pubescens, foliis radicalibus obovatis spathulatis obtusis lyrato pinnatifidis; foliis caulinis sessilibus lanceolatis acutis, sinuato dentatis (subinde anagyne crispis) supremis integris; bracteis ovato lanceolatis, acutis, ovarii superantibus, deciduis; calycis tubo infundibuliform: ovarii ~~a~~ aequante segmentis hirsutis duplo, triplove brevioribus; petalis brevissime unguiculatis, sub rhomboideis calyce subbrevioribus; pure suffoped rellata supra infraque attenuata, acuta, 4 angulata carnosa ~~laterales~~ foriebus ad medium carinatis, transverse plicatis.

Prairies, Texas from Houston to the Brazos; in April — May — again in August & September. — Stems much branched 2 — 4 — 5 feet high. The earlier specimens have larger flowers. Appears to be near G. villosa Torr, but distinguished by the larger bracts subsessile not linear with lanceolate fruit. — Fruit similar apparently to that of G. tripetala, but never triquetrous, and only ~~x~~ segments always much longer than the tube.

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I have several other undescribed species of Gaura, which I will only indicate here as most of them are not complete enough, being without fruit.

Gaura exaltata caule erecto ~~ramos~~ infra villosi, supra adpresse pubescente, paniculato-ramoso; foliis lanceolatis, crenato-lanceolatis, supra infraque angustatis, sparsim repande denticulatis; ~~glabris in ovulis~~ superne ~~ramos~~ adpresse pubescentibus; bracteis linearibus, deciduis; calycis segmentis tubum aequantibus, ovario ~~ramosum~~ cuneato bis ferve superantibus; petalis spathulatis longe unguiculatis; calyce subbrevioribus; nuce sessili ovata subacuta, ~~costis 4 obtusis~~ ad angulos, ~~et 4 inconspicuis intermediis~~ obtuse 4 carinata nervis inconspicuis intermediis notata.

Prairies on the margin of woods near Houston; ~~Ste~~, 6–9 feet high, often covering large spaces of ground. — Mem. Gaura biennis, but distinguished by the much smaller flowers, the oblong or spathulate long unguiculate petals, and the shorter fruit; from G. parviflora by the short ramose ovary and smoother leaves.

Gaura ~~bracteata~~ caule erecto ramoso infra adpresse pubescente, supra canescente; foliis lanceolatis crenatis, repande denticulatis, ~~adpresse~~ pubescentibus ~~parvioribus ramosentibus~~; bracteis lanceolatis persistentibus, ovario ~~longe~~ et fructu longe superantibus; calycis segmentis tubum aequantibus, ovario ramosente duplo ~~superantibus~~ longioribus; petalis oblongis unguiculatis superantibus; nuce sessili ovata lanceolata, acuta, ramosente obtuse 4 carinata, nervis inconspicuis intermediis notata;

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6. Lindheimer, Collections 1843

Prairies, near the Seacoast, at the mouth of the Brazos
etc – July to August. – Approx. 3 or 4 feet high. Near the last mentioned
G. biennis, easily distinguished by the
large leafy bracts which resemble the upper leaves;
the flower and fruit is smaller than in
G. biennis; fruit of the same shape, acute
at both ends; much thinner than the fruit of
G. exaltata; – Petals smaller and narrower than in
G. biennis, and shorter than, or scarcely equal to the
G. exaltata, ~~but and much~~

Gaura ~~glabra~~ caule erecto, glabro, supra ramoso,
glabro, foliis ~~lanceolatis~~ lanceolatis, sæpe dentatis
dentatis glabris; bracteis linear-lanceolatis, ciliatis
persistentibus, ovario longioribus; ~~calycis laciniis~~
~~segmentis tubum~~ bis terve superantibus; ovario
~~linear hirsuto tubum~~ calycis hirsuti tubo segmentis
bis terve brevioribus, ovarium linear hirsut
subaequante; nuce – – –

Wet Prairies near the coast, mouth of Buffalo bayou, ~~July~~
(Approx. 2-3 feet high.)
beginning to flower in July. – (Calyx ~~very similar~~ (and flowers)
very similar to that of G. Lindheimeri; but the
ovary is longer and more slender. – Distinguished
from all other by its smooth, green colour, together
with the large ~~green~~ entire bracts.

Gaura purpurea caule (basi suffruticoso) adscendente, puberulo
virgato ramoso; foliis ~~sæpe~~ crenatis lanceolatis
sinuato dentatis, ovatis; bracteis ~~ovatis~~ subulatis ovatis
caducis, ovario multo brevioribus subpersistentibus
tubo calycis caducis segmentis et ovarium
gracile, basi attenuatum subæquantibus; petalis
(demum purpureis) calyce multo brevioribus; nuce –

Margin of rivulets, west of the Brazos August.
– 1-2 feet high, somewhat ~~[illegible]~~ ; apparently
near Gaura Drummondii which like this one is the
only of our Gauras, where, only tube ~~or~~ segments of

calyx are of about the same length, apparently distinguished from it by the very short bracts which are often so much persistent. — ~~Petals~~ The color of the petals these and anthers are dark red darker than the petals Gaura coccinea. — ~~Fruit~~ The young fruit of our species is linear-lanceolate & angl somewhat tensile at base. — From Gaura coccinea it is distinguished by the loose ~~flowers~~ the shorter bracts and the compressed fruit.

Besides these texian Gauras I ~~find in my Herbarium specimens of~~ have ~~1835~~ collected an undescribed species of Gaura in Arkansas ~~in small grassy valleys~~ on wet places, near the Hot Springs, which differs ~~from all others by its extremely short~~ ~~ovary~~.

Gaura arkansana caule erecto virgato ramoso pubescente; foliis lanceolatis, ~~[illegible]~~ ~~obovatis~~ subdentato-sinuatis, superioribus ~~[illegible]~~ ~~+ petiol~~ attenuatis; superioribus subsessilibus bracteis lanceolatis parvis deciduis; calycis tubo ovario ~~duplo~~ omnino ~~superante~~ segmentis, calycis et petalis obovatis unguiculatis bis brevior; nervo unico ~~evanescente~~ obovata, apice ~~superne~~ acuta, cuneato-lanceolata, ad basin attenuata; nervis intermediis notata.

In small ~~grassy~~ spots valleys, ~~near~~ near the Hot Springs, Arkansas Aug & Sept. Stem erect about 4 feet high; ~~frequently~~ leaves olive turning reddish. Near G. biennis in habit, but fruit shorter, more evenly angled and somewhat attenuated at base; lobes of calyx & petals much longer than tube.

Flowers somewhat near G. glebe & G. Linkernani, but ~~very rare~~ only & adpresse pubescent, not hirsute & very much shorter.

Eupatorium
Solidago S. Ohio
= 36 = angustifolia
S. Ohio May June

(Nell 74)

73. Liatris ~~lanceolata~~ macronata

Distinct from L. macronata by the coarser form of its flowers ~~in April and May~~; by the larger heads, 4-5 flowered heads, lanceolate ~~very~~ partly mostly scales, and mostly shorter pappus, which is entirely equal to the nearly smooth achenium.

P. vernalis by the many headed ligneous root by the short spikes

"Wet Sandy Prairies, near Houston in April & May.

95 Helianthus ~~cuneifolius~~ ~~ramosus~~ Our specimens have solitary ~~single~~ ~~naked~~ ~~leafy~~ ~~rigid~~ potted stems long terminal or axillary peduncules, bearing single heads ~~bracles of involucrum as stated in Torr. Flora~~ narrowly linear lanceolate ~~alternate~~ subulate acuminate much longer than the disc rays 12 to 18 reaching to about the middle of the rays; disc dark purple, chaff 3 toothed middle tooth scabrous elongated subulate. achenia villous pubescent mottled light gray with dark crossings and markings; pappus ~~chaff~~ 2 flinear lanceolate, pubescent scales.

cordate acuminate coarsely serrate leaves

Sandy Prairies, west of the Brazos; July & August.

96. Helianthus vernalis Nob. ~~caule hispido~~ ramoso; foliis alternis, infimis cordatis reliquis basi obtusis, omnibus in petiolum abrupte attenuatis, serrato dentatis pedunculis terminalibus 1, elongatis unifloris; ~~squamis~~ involucri foliolis lanceolatis acuminatis, disco ~~vix superantibus~~, ~~pappo~~ paleis triangularibus dente medio elongato subulatis; fl. radius 16-18, acheniis pubescentibus; paleis 2 lanceolatis pubescentibus.

Fl. radius 16-18

Loose sandy soil impregnated with salt Galveston Isle, April - May, The first flowering Helianth

very near the last species, also apparently annual, 1½ to 2½ feet high, ~~much branched~~, stem somewhat spotted, much more hispid than the ~~th~~ oncum folius; but the chaffy distichous are the broader, much shorter and more highly carinated scales of the involucre, the ~~hairy~~ disk flowers which ~~however~~ are in our specimen of H. oncum also minutely pubescent not glabrous; Achenia smaller, also somewhat mottled less hairy; pappus little broader ~~somewhat longer~~, about half the length of the Achenia

much branched, forms bushes

x, not cordate much less serrate leaves, the

and more highly carinated

93. Eupatorium angustifolium L. ~~var. pallida~~ ~~Nuttallii pallida of Nutt.~~ undoubtedly the original E. angustifolium of Decandolle and somewhat different from the more northern form, Peduncules long, hardly thickened ~~below the head~~ at top, head hemispherical not conic, with somewhat flattened pubescent

our plant is

Clayey soil in Pineywoods, stys 8–13 1/4 to 2 feet long. — Flowers April & May

The northern form, E. sanguineum Nutt is much stouter, peduncle more massive for some distance below the head, head twice as large, hemispherical, at last conical, dry pappus open brown, massive & silky in May and June, red about as dark red as those of E. purpureum. — Both forms ~~can not always~~ be very very much, and

stys 12–16 2–2½ inch long,

111 Gnaphalium purpureum. Lin var spicatum Inner scales apparently not purple ~~tinged~~ to merely on the lower surface of leaves closely adpressed silvery.

110 Eglites texana ~~Lamarck~~, caulescens, caule a basi ramoso, diffuso, foliis obtusis inferioribus in petiolum attenuatis ~~obtusiusculis~~ spathulatis ~~plerumque~~ grosse serratis dentibus ~~s.~~ paucis, s. sub integris, superioribus sessilibus, s. cordato amplexicaulibus, subintegris; radiis

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involucrum multo superantibus, ~~tubo~~ florum ~~corollae~~ disci ~~Disci et~~ radii et dorsi exterioris bracteis indurato, callosis. ~~stylis~~ floribus disci intermediis imperfectis, sterilibus, stylos indivisos.

~~Sept~~ Rocky woods of the Guam, Galveston Isle April ~~to~~ ~~November~~ May. — Not apparently annual, but we have seen specimens collected in flower in November with nearly suffrutescent, very much branched and decumbent stems. — Not only Corolla of the outer disk flowers but also of the ray flowers wither at once after flowering; only the ~~outermost~~ ray flowers ~~and the outermost rows of~~ disk flowers and some of the outer are fertile; ~~the innermost are sterile~~ the greater part of the disk flowers are sterile; their style is divided, but mostly shorter than the Corolla, only the style of the innermost is imperfect, undivided. — Artemisia salsola

~~Have~~ Have you seen Heerlin's Shrubbery? Dr Gray kindly and may not be this his plant? Cut Pappus cleft — magnify ~~fine~~ very carefully section & say only that

109. Marshallia caespitosa Nutt. All our specimens have only one single stem, and are not caespitose; the line below seems to say that they grow singly, ~~not in groups~~ not in groups together.

Cirsium filipendulum leaves pinnatifid; lobes ~~of the lower~~ spinose dentate, of the lower ones inwardly dentate or lobed. heads twice as large as in C. virginianum peduncles not naked, but with bracts ~~the~~ small bulbiferous leaves, esp. to the head

114 Pyrrhopappus apolinianus Dr Pappus of the whitish ~~head of the rotata~~ ~~had of the~~ point rather ~~a~~ a hairy or woolly ring; ~~not~~ Perhaps in modern ~~or~~ Torrey's & Gray's rotate as long as stamens at their

122 Cuscuta neuropetala Engelm. Sill Journ 45, 75

This is a smaller form, ~~[illegible]~~ with somewhat larger flowers, and an earlier time of flowering, and growing in drier places, mostly on Ceanothus multiflorus. ~~Further investigation will probably prove this to be C. hispidula Engelm.~~ It approaches C hispidula Engl. and it is not improbable that further investigation of the living plants will prove this both to be only varieties of one very variable and widely dispersed species, for which we would suggest the name C. porphyrostigma, as all forms which would belong to it have are distinguished from all other known N. American Cuscutae by the purplish brown stigma. Another very remarkable variety is:

but also on Lactuca and even on Euphorbia corollata

123. Cuscuta neuropetala Engelm. β. littoralis vide Cuscuta Europa

124 C. cuspidata vide Cuscuta

125. C. pentagona γ. polygonum Sill. Journ. 45, 76

Wet places, mostly on Boltonia diffusa

128

126 C. verna E. Sill Jour. 45. 74

Note to C. cuspidata — ~~Besides~~ two other new north american species have been kindly communicated to me by Dr A Gray and Mr. W S Sullivant, who have collected the Cask fall (1843) on the South Alleghanies.

Cuscuta oxycarpa vide Cusc.

Cuscuta ~~[illegible]~~ (Lepidanche) compacta Choisy?

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128 Convolvulus aquatilis Nutt. On wet Prairies, west of the Rocky; sometimes often ten feet long. —
~~In this species~~ by the hairy leaves, calyx and capsule distinguished from C. tenellus but not in the form of leaves — the ~~corolla~~ ~~calyx~~ sepals with larger and not so sharply acuminate;

127. Convolvulus sagittifolius Nutt.; peduncles one flowered, rarely two flowered, with longer than the petioles, ~~but with two~~ minute deciduous bracts in the middle. Seeds ~~with two~~ woolly ~~lines~~ on the edges —
Dry prairies near Houston, climbing on grass etc 8–15 inches high; In thickets near the coast 2–3 feet high. June — July. to September

Convolvulus volubilis, glabriusculus, fol. cordatis acuminatis, acuminatis (vero obtuse angulatis) pedunculis ~~+ 2 floris~~ petiolos aequantibus, vel paulo superantibus, 1 vero 2 floris, medio 2 bracteolis, bracteis ~~obovatis~~ spathulatis, sepalis ovatis obtusis tenuissime reticulatis, mucronatis; ~~corolla~~ tubo vix albo expanso, —

Thickets near the Coast June July.

Convolvulus P. Pickeringii, from the Rocky.

Convolvulus, perhaps C. sericeus Lindley.

Hydrolea ist wohl Hydr. ovata Nutt — ob aber die Langettblätter, entsprechen von Houston auf diese gefärbt?

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Lisianthus glaucifolius Jacq? – Salvia most prairies, near the coast. July rare

119. Sabbatia campestris Nutt. (I have no description at hand, but have seen a specimen which appears to be entirely the same. I have collected specimens of the same in Arkansas and Louisiana. – Apl & May – again – August & Sept to – annual.

120. Sabbatia phyllocalyx annua, caule subarcuato, flavido, simplice s. brachiato-ramoso, foliis ovato lanceolatis, inferioribus obtusis in petiolum attenuatis, superioribus sessilibus subacutis, calycibus 5 partitis, laciniis foliaceis oblanceolatis, corollam 5 partitam superantibus, lobis corollæ obovatis obtusis.

sandy margin of streams near Houston, May & June. — Apparently an annual plant with a weak stem, thin membranous leaves and very large lobes of calyx; ~~which exceed the rather small corolla~~; corolla smaller 8 or 9 lines in diameter pale rose colour white when dry, very strikingly distinct from the nearly related S. calycosa by the much smaller and constantly 5-parted corolla, and by the lower petioles being petiolate

Arenates longifolia, A. viridis = A lanceolata which last is certainly only

probably a variety of A. viridiflora with leaves more slender, Gentiana viridiflora, Eihites diffusum, 118 Lysimachia maritima E.G.

8. Lindheimers Collection 1843

117. Asclepias ~~longifolia~~ pauperula Mich. :
4 – 6 feet high – in brackish swamps
near the coast – in fresh water swamps, thicket
root tuberous, flowers similar to
those of A. tuberosa, but much
larger. –

Anantherix paniculata Nutt
~~Codonoligma viridis~~ Nutt? also :– Missouri & Ohio
but would rotate not connivent, also point dia ente

Brunnlia ~~obtusa~~ lanuginosa?. Pflin
oblanceolatis subacutis, subtus villosis;
pedunculis & calycibus microtomentosis
A similar one :– S.W. Missouri
but with broader ~~spatulate~~ oblanceolate
obtuse leaves – I have not seen
the B. obovata with smooth leaves!

Lobelia texensis – L. appendiculata (non Turnum). L. brevifolia
L. Little Rock
but branching

115. L. ~~amoena~~ glandulosa Nutt. wet Prairies, leaf
~~Lobelia with~~ more or less scabrous, calyx
sinus very slightly reflexed; fruit ~~triangle~~
for a broad base lanceolate. Perhaps another species
– approaching to L. puberula
Specimens from ~~Prairies~~ woods are ~~slightly~~ more
glabrous. Less rough ~~upper part of stem~~
~~glabrous~~ slightly pubescent – tube of calyx
~~less rough~~ hispid or nearly glabrous

another form still. :– April :– wet
prairies has narrower lanceolate leaves,
& is nearly smooth

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129. Nama : Cal. 5-~~partitus~~ persistens, corr. infundibuliformis
(non subrotata Spr.) limbo rotato 5 lobo ; stam 5 inaequalia, basi corollae inserta, inclusa Antheris cordatis ; ovar. super. 2 loculare, styli 2 apice incrassati, stigmata obtusa, Capsul bilocularis pleiosperma dehiscentia loculicida, dissepimento medio placenta fera

130 Nama texensis, annua ~~caule~~ ramos, simplex caule erecto s diffuso, ramis pilosis, foliis sessilibus, oblongo-linearibus crassiusculis strigosis, ~~floribus~~ racemulos ~~glomerulos~~ ~~bis~~ 2-4 floribus, oppositifoliis ; tubo corollae (coeruleae) calycis laciniis hispidis aequante ; capsula oblonga ~~vulgo persistente~~ inclusa, seminibus plurimis minutis tuberculosis.

Sandy Prairies, margins of woods, near the Brazos. June. An annual plant of the habit of Boraginea, about a foot high, much branched, branches somewhat decumbent ; bark of the stem scaling off, of the branches hispid-pubescent. Inflorescence terminal but by the developement of the axillary shoots ~~being~~ latterpushed aside, and becoming lateral, opposed to the leaf. —

It does not entirely agree with the character of Nama : corolla subrotata but appears to be near N. jamaicensis and N. undulata.

131 Lithospermum linearifolium Goldr ?
strigoso pilosum annua ; caule erecto ramoso, foliis linear-lanceolatis, ~~inferioribus~~ petiolulatis ~~[illegible]~~ ; tubo corollae extensa strigosae albidae, ~~tubo~~ calycem demum multo excedente ; nucibus rugosis strigoso pilosis.

In prairies, fertile and sterile soil and cultivated grounds, for April to July, and probably through the Summer ;

132 Heliotropium minutiflorum annuum
strigoso-pilosum caule erecto ramoso foliis ~~petiolatis~~ ovato-oblongis, obtusis v. acutiusculis
v. pubol attenuati, spicis pedunculatis geminis ; terminis

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pedunculis calyce strigose brevioribus corolla hispida, laciniis lanceolatis acuminatis extus strigosis; nervis strigosis. Myosotis

Banks of the Brazos near San Felipe June — In many respects resembling Selsotropi europaeum; but flowers not one fourth the size, white, with acuminate not ovate obtuse lobes, fruits strigose but not tuberculate: Leaves ~~about~~ about 1 inch by 1/4 inch wide, hairs as long as the petiole, rarely with one or two ~~lateral~~ veins. 1-2 feet high

134. Phacelia ciliata n. sp. annua, erecta, caule erecto a basi ramoso, glabro; foliis inferioribus petiolatis lyrato pinnatifidis, ~~reliquis~~ superioribus similibus, pinnatifidis segmentis oblongo-linearibus acutiusculis, ciliatis superioribus ~~apices~~ terminalibus solitariis; pedunculis calyces aequantibus, fructiferis longioribus, deflexis; calycis segmentis linearibus ~~obtusiusculis~~ glabris ciliatis, corolla ~~longioribus~~ brevioribus calycis corollae rotundatis extegens extus pilosis, filamentis pilosis an stylo exsertis. capsula pilosa, semina scabra 8

Loose sandy soil — Pinewoods near Houston March & April —

I have sent you 1 or 2 years ago 3 different species of this plant, 2 tax. I believe 1 of the most like this; it is undoubtedly already described. —

135. Solanum texense n. sp. perenne stellato-tomentosum inerme, caule herbaceo erecto ramoso, foliis petiolatis lanceolatis sinuato dentatis s subintegris, floribus racemosis pedunculatis, floribus longioribus fructiferis deflexis; corolla rotata extus ad nervos medianos stellato pubescente; staminibus aequalibus

Roadside, Prairies, Margin of woods, Houston to the Brazos,

June – Sept. 1 – 1½ feet high; leaves 2 – 4 inches long ½ – 1 inch wide, mostly with a few blunt teeth, sometimes entire and occasionally deeply sinuate-toothed; corolla pale purple; berries yellow

Solanum nigrum? near carolinense but villous tomentose, whitish, prickly weak, calyx also sinuate with a few prickles — flowers large, corymbose.

136 Physalis maritima Curtis mss. probably only a variety of one of the many Ph. pennsylvanica, — ~~grassy~~ sandy places on the sea shore covered with grass; Galveston island apparently in flowers from Capitol — November

Phys. angulata
Phys. lanceolata, also only a form of Ph. pennsylvan
Phys. viscosa, parvifolia; perennial! flowers with long peduncles; but leaves as small as in the smallest forms of Ph. obscura only ½ to 1 inch long

142. Pentstemon digitalis Nutt. ? Caule erecto pubescente, foliis inferioribus lanceolatis acutis superioribus semi amplexicaulibus, ovato-lanceolatis s. late ovatis; scapis pubescentibus; foliis floralibus, pedunculis ~~calycibus~~ que glandulosopubescentibus; sepalis lanceolato acutis; corolla maxima ventrosa extus glandulosopilosa intus glabra.

et sepalis lanceolatis

Ravines, in clayey soil; April to June

As it Nuttall's P. digitalis ? The name is appropriate and I used it before I was aware the Nuttall had applied the same

G. Lindheimers Collection 1843

141 Gerardia spiriflora n. sp. ~~[illegible]~~ (Remis?)
erecta, inferne foliosa, ramosa, superne
simplici subnuda, foliis oppositis oblongo-linearibus
basi attenuatis (inferioribus subspathulatis obtusis,
superioribus acutiusculis; margine scabro revolutis)
floribus oppositis ad apices pedunculi elongati
in spicam nudam dispositis; bracteis
et pedunculis longitudine calycis; calyce
subregulari, 5 dentato dentibus ovatis
obtusiusculis; corolla (purpurea, minore
oblata; filamentis et antheris subrupilosis;

may of British ponds Gilbert Isle
May, probably into the summer)
About 10–15 inches high; remarkable light long
naked common peduncles; corolla funnelshaped,
not very ventricose 6–9 lines long.
It is near G. maritima but distinct by
the greater size of the plant but smaller
naked flowers and fruit, the scabrous revolute margins of the apparently
leaves, ~~with scabrous~~ and by the form of revolute
the calyx.

140 Gratiola aconitifolia Walt. — Among specimens of
the common form of this plant
we find in others collected in August in
moist clayey soil on the Brazos,
which are distinguished by the diffuse
at base decumbent and radiant stems
the shorter, broader obovate leaves,
the longer peduncles, and the much broader more
unequal sepals which are all lanceolate
acuminate not ovate obtusish. At present we can not specifically
distinguish this remarkable form.

139. Buchnera ~~parviflora~~ americana L. B. parviflora
whole plant smaller usually 10–15 inches high
flowers half as large the in the north form.
Apparently no other difference —
Dry or wet Prairies, Galveston to the Brazos
April & May again July & August. — The

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common north form has not been met with by the Linnaeans.

Linnaeus reports, apparently little differing from L. d'Etats; pedicells longer, upper leaves smaller, segments of calyx shorter the capsule.

153. Monarda penicillata n. sp. caule erecto tetragonato, ramoso, puberulo (in petiol alternatis) foliis lineari lanceolatis, glabrinsculis glandulosis, summis basi ciliatis; floribus verticillatis; bracteis oblanceolatis ciliatis aristatis supra ad apicem tomentosis, infra coloratis verticillis aequantibus v. paulo superantibus sessilibus subnudis, 15 striatis, glandulosis; dentibus calycis longe aristatis ciliatis; ciliis longis ad apicem penicillatis; corolla subnuda, glandulosa; labio superiore bifido, nearly post flower in June.

Prairies east of the Brazos. A perennial similar in Habit to M. punctata, and of the same fragrance. Flowers sun rise.

Monarda aristata n. sp. caule erecto tetragonato puberulo; foliis inferioribus oblanceolato ovatis, superioribus lanceolatis v. lineari lanceolatis, remote dentatis in petiol alternatis subnudis glandulosis superioribus basi ciliatis; floribus verticillatis bracteis oblanceolatis ciliatis, aristatis supra tomentosis, infra coloratis verticillos multo superantibus,

calycibus semilibus, cylindricis, 15 striatis
glandulosis, pubescentibus, dentibus
sordis longe arcuatis, corollis;
corollae labio superiore bifido
piloso.

Moist rocky places northwest Albany
begin to flower in June — distinct
from the foregoing by the longer bracts, the
more strongly cylindrical pubescent
not glandulous calyx, the longer arcuate
of the teeth and the hirsute upper lip
of the corolla. —

Both are different from the true Monarda
by the 15 striate calyx (Monarda always
with 13 stria), and by the bifid upper lip
separate section called Pleiontion neuron

151. Monarda Lindheimeriana n. sp. caule
glabriusculo, superne sparsi-piloso
simplici s. superne ramosa; folia petiolis brevibus
~~brevibus pubescentibus~~ folia basi subcordata
ovatis acuminatis, grosse serratis,
glabris, glandulosis marginé
sordis, subtus ~~[illegible]~~ albescentibus,
~~floribus axillaribus capitatis pedicellatis~~
bracteis ~~capitularibus~~ integris glandulosis
capitulum subaequantibus; flores
pedicellati calycibus subdensis
glandulosis dentibus subulatis
diametro tubi subaequantibus; fauce
villosa corolla glandulosa pilosaque
calyce magis brevior
α. dentibus calycis diametro tubi
superante villo faucis brevissimo
β. calyce subaequante strictiore
β. dentibus calycis diametro tubi
brevioribus villo magis conspicuo
dentes subaequante.

many of words, Prairies in dry clayey soil, for April to June again in Sept & October. — Of var. B. we have seen only a few specimens mixed with the other

150. Tecoma — laevigata Vahl? caule erecto s. adscendente, ramoso, glabro foliis bris. ternatis — petiolis brevioribus attenuatis, noviso 3-multipartitis laciniis oblongis oblusis integris s. inaequodentatis; ~~sibus planis~~ margine non revolutis ~~foliolis~~ in axillis foliorum solitariis oppositis pedunculatis pedunculis calyce aequantibus. Calycis infundibuliformis lobis lanceolatis mucronatis tubo corollae multo longioribus, nervis dorso 3-costatis.

Prairies, Galveston, Texas, apparently very scarce
April & May. —

147 Diarrophula variegatus Vent., a minutely agreeing with Elliott's description but much smaller than the calyx, corolla not pubescent — & style not hairy.
Wet Prairies east of the Brazos.
July. 2 – 5 feet high.

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10. Lindheimers Collection 1843

Brazoria n gen. — name from the Brazos

is New Genus of Labiatae. Coll. Brazos No. 71

Calyce bilabiato, labio superiore 3lobo, inferiore bilobo, lobis latis obtusis, spinulosum dentatis; corolla ~~[illegible]~~ ex recta, bilabiata, labio superiore erecto bilobo, inferiore 3lobo; staminibus 4 ~~[illegible]~~ didynamis, antheris, interne pilosis; stigmate 2fido. calyce fructifero clausso

Plantae annuae texensis, floribus oppositis, ~~spicatis~~ racemosis.

Brazoria annua n sp.

pubescens, foliis oblongo ~~[illegible]~~ caule erecto ramoso denticulatis (glabris) (serratis); ~~[illegible]~~ opacis, ovatis floribus pedunculatis ~~calycibus hirsutis~~; corolla calyce basi piloso, triplo superante, nervibus ante triangularibus.

Found by Mr. Lindheimer, under Helianthus Argyrophyllus etc — ~~[illegible]~~ on the Brazos May 4th — An annual plant branching from the base — ~~[illegible]~~

~~plants~~ caule ramoso

143. Scutellaria Lindheimeri n. sp. erecta s. diffusa pilosa pubescentis abrupte foliis ovatis, ~~in~~ petiolum attenuatis infimis subrotundatis, e medio crenatis superioribus abscissilibus integris; floribus ± axillis solitariis, breviter petiolatis; calycibus corollisque villosis; ~~seminibus~~ tuberculatis

On the coast soil composed of fragments of shells, Coast of Galveston island towards the bay. May. — ~~If not actually an annual~~ Many of our specimens flowered — the first year and have all the appearance of an annual! — Our plant is ~~[illegible]~~ near S. parvula but it is well distinguished by ~~greater hairs~~ more pilose and pubescent. — stem much branched from 10 to 20 inches high.

but especially by the leaves not always sessile but always alternate in a more or less distinct petiole; only the very lowest ones are ~~more~~ somewhat ~~less~~ cordate. — We have specimens of a Scutellaria collected in the black soil of the Prairies west of the Brazos flowing: July, which is ~~to be~~ distinguishable — for this Galveston plant only by its ~~habit is~~ much smaller size ~~and~~ ~~at first sight these~~ with smaller ~~leaves~~ ~~mostly~~ entire leaves, — ~~probably a~~ var.

144 Scutellaria Drummondii? pubescens caule erecto, ramoso, foliis omnibus petiolatis, cordato triangularibus crenatis, obtusiusculis; foliis floralibus minoribus subintegris acutis ~~superiis~~ minis bracteiformibus; floribus axillaribus, breviter pedicellatis corolla pubescente, ~~minutissime~~ minutissime tuberculatis

In dry and wet places, open woods, under shrubbery near Houston May to August and again in Sept & October. — Stems 1–2 feet high; leaves, even the upper most bract-like ones always petioled all triangular sometimes 1/2 inch long and 1 inch broad, mostly only an inch long; corolla large, 9 or 10 lines long. — ~~Flowers~~ Apparently intermediate between these with single axillary flowers; with racemose flowers; ~~resembling~~ ~~distinctly S. lateriflora~~ as in some specimens the upper leaves are large and in others, smaller and more distinct and more approximate; — We have specimens collected in open dry places with all the leaves ~~are~~ very small ~~and where the~~ ~~resembl~~ distinct from S. L.

parvula only by the petiolate triangular leaves and larger flowers.

I have collected the same species near the Hot Springs of Arkansas

153 Verbena bipinnatifida Nutt.[2] Distinct from V. spuria by the erect stem and short bracts; habit of V. officinalis, but in this the flowers are small, ~~similar in size to~~ fruiting calyx short nearly cubic, similar to that of V. urticifolia, (of V. bipinnatifida the corolla) are large as in V. stricta, and the fruiting calyx is elongated of the size of that of V. parvula, and also with the style persistent.

Dry prairies, Galveston to the Brazos, March to July, the later specimens collected in July are nearly leafless, but continue to flower.

154 Verbena macrostachya n. sp. caule erecto, hirsuto, foliis ~~resupinatis~~ infimis ovatis, in petiolum attenuatis, deinde inciso dentatis superioribus sessilibus incisis 3-multifidis, lobis inferioribus incisodentatis, summis lanceolatis integrodentatis, subintegris, spicis terminalibus subsimplicibus elongatis floribus subsitis demum remotis bractéis e basi lanceolata subulatis calycis acquantibus dentibus calycis ~~lanceolatis~~ ovatis, acuminatis

Roadsides, wastes etc. near Houston April to July. — In the thickness and roughness of the leaves and the prominent veins of their lower surface and in the size of the flowers it resembles V. stricta but the shape of the leaves, the length of the thinner spikes and the much shorter fruit distinguish it easily from this species.

157. Ruellia nudiflora n. sp. caule erecto subdecumbente a basi ramoso pilosiusculo foliis lanceolato-ovatis, obtusis in petiolum basim

attenuatis ad venas pilosis, basi et petiolis ciliatis; cymulis 3-floris longe pedunculatis in paniculam ~~radam~~

aphyllam ~~compositis~~ glanduloso-pubescentem, congestis calycis laciniis subulatis pubescentibus tubum corollae dimidio v tertio aequantibus, capsula pubescente subcrenulata.

~~Dry plains~~ Open woods at Simms's Bayou near Houston, May to July. — Root fasciculate, stem one or several, erect or ascending branching from the base, with short adpressed pubescence & longer loose hairs. The leaves ~~above longer petioles than~~ ~~in other manner~~ Smaller. The route other leaves are 1½ to 2 inches long ½ to 1¼ inch broad attenuated into a petiole mostly about half as long as the leaf. ~~But this plant species is~~ But it is principally distinguished by the leafless panicle of flowers. —

158 S. nell. var. lissa Pursh

Besides this there is another species, pilose erect, nearly simple, leaves lanceolate acute at each end, short petioled; cymulis subsessilibus; laciniis calycis subulatis. — from S. strepens only differ by the calyx and the more sessile cymes; — or is our S. strepens nearly smooth with lanceolate ~~calyx~~ segments of calyx; something else?

159 S. humilis Mich — very probably? but flowers always solitary in our specimens

160 S. ~~pedunculata~~ brachiata Pursh is no Sustrin. proper capsule very peculiar, completely 2 celled, 2 under opening in six parts.

11. Lindheimer's Collection 1843.

Antherone

n. gen. calyx 5 fidus; corolla tubulosa, bilabiata labio superiore ~~bifido~~ emarginato inferiore trifido lobis rotundatis ~~ovatis, concavis~~ staminibus 4, antheris ~~gindilo~~ bilocularibus superioribus majoribus inferioribus minoribus (incompletis ~~subinde~~ parvo carentibus Lindh.) capsula bilocularis, disseptimento contrario valvis ~~dindo~~ adhaerente, seminibus plurimis (12–20) retiraculis suffultis.

Planta perennis aquatica habitu Justiciae staminibus 4 et capsula polyspermum distincta. ~~corolla tubulosa~~

glabra

pinguis n. sp. caule erecto simplici, foliis oppositis ~~binatis~~ lanceolatis elongatis, margine obtuse serrulatis floribus ~~glomeratis~~ sessilibus in axillis foliorum glomeratis, corolla calyce vix superante; capsula linearis lanceolata acuta.

near Houston

In swamps, fl. Sept & October.

end of the third letter to Gray

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168. Polygonella ericoides. n. sp. — you tell me the genus is known; if the species also known? if not ericoides may be a good name if it distinguishes it from other species of the genus.

Polygonella: ~~calyx~~ perigonium 5 partitus, stamina 5 exterior filiformia, 3 interiora petaloidea obcordata, cum stylis 3 capitellatis alternantibus; nux triangularis ~~stylus~~ perigonii segmentis 3 interioribus ~~augmentatis~~ inclusa, 2 exteriorbus minoribus (~~reflexis~~ distinctis?)

Herba suffruticosa, a Rumice ~~toto~~ numero laciniarum perigonii ~~habitu~~ et stigmatibus ~~nonnunquam~~ ~~et~~ stigmatibus capitatis non ~~villosis~~ penicillatis et toto habitu — a Polygona stylis ~~ad basin~~ liberis et nucibus solum laciniis perigonii 3 interioribus multo augmentatis tertis.

glabra, glauca

P. ericoides, caule suffruticoso ramoso foliis ~~plurimis~~ fasciculatis, oblongo linearibus obtusis, mucronatis, floribus spicatis spicis paniculatis bracteis ochreatis ~~denique~~ aristatis! floribus pedicellatis

laciniis perigonii fructiferis pendulis, intensivile ovatis subrondatis, emarginatis extensivile reflexis, multo minoribus.

Pinjiers 16 miles west of Sl Felix on the Bayou. – July. – Stems 1–1½ foot high, many from the same root somewhat fruticose; leaves with ochreat stipules; apparently somewhat fleshy. – This plant is more closely related with Polygon than with Rumex but the fruit resembles the last genus much more than the first.

— Among Pl Polygona is one nearly related with P. mite & punctatum; which I have called P. texanum: others erilcatis; perigonii's glandulos is, 5–6 angis 2 gynis, semina lenticis

Pl. — a large plant, 2–3 feet high, growing in swamps, leaves 5–7 inches long, 1½ inch broad.

169. Crigonum flavum Ras. ? I doubt whether this be Rush's plant but I have no specimens nor anything good to compare and must leave it undecided.

170 Sl. Ligustrum male flowers seem to be nearly sessile, but in our specimens they are long pedicelled.

169. Skilling lanceolate Nutt soft pubescent Sl siphoritica Lin. ?

Borya new? hetogynous flowers, pubescent. new species? Ba pubescens?

Trigin notoriflia: amongst the common form ~~specimen~~ is a specimen, very similar but climbing! Lindheimer thinks it is a variety; ~~and it may be so~~ but the leaves are narrower, with shorter petioles, the flowers not ~~many long spikes~~ as in T. nut. but a few 2–4 together flowers, fruit, and fruitiferous only, much smaller. It may be a different species

174 Euphorbia bicolor n.sp. annua, caule erecto, ~~canescente~~ foliis subsessilibus, ~~lanceolatis~~ s. linearibus lanceolatis basi obtusis, cuspidatis, pilosis s. villosis umbellae trifidae ~~vlunae~~ ramis bis dichotomis, foliosis; bracteis linearibus lanceolatis basi attenuatis margine decoloratis membraneis, glandulis isolatis (villosis) margine pelatoideis, subbifidis; capsulis dense lanatis, seminibus ~~[illegible]~~ sub rugosis

~~Prairies for Gilbert to~~

β. concolor; bracteis margine membraneo angustissimo s. subnullo; foliis latioribus

Prairies near Houston Lean to Septemb.

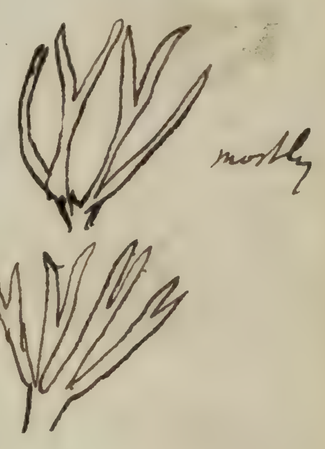
β. wet saline prairies near Lynchburg. — ~~Annual~~, (2 to 4 feet high) a splendid species, resembling much E. marginata Pursh distinguished by the narrow leaves and bracts & by the villous pubescence. — Our specimens of β. have wider leaves and the bracts ~~have~~ are nearly entirely green but they are poor specimens, not fully developped.

fl. masc. apice spicae pedicellatis;

172 Croton glandulosus L. cal. masc. 5 partitus stellato pubescens, petala 5. hyalina, stam. 9–12 (anth. orbiculatis) fl. fem. ad basin spicae glomerantes sessiles; cal. fem. 5 partitus, corolla disco carnoso, 10 dentato insidens dentibus 5 cum sepalis connatis, 5 intermediis subulatis, ovario stylis 3 profunde bifidis.

From Illinois to Texas

~~173~~ Croton capitatus Mich. fl. masc. apice spicae brevissime pedicellati, ~~cal 6–8 partito, laciniis inaequalibus ovato-lanceolatis~~ cal 5 partito petalis 5 hyalinis fimbriatis; stamina 12, anth. orbiculato-ovatis; fl. fem. basi spicae glomerati, calyce sub 8 partito, segmentis inaequalibus, ~~lanceolatis~~ spathulatis, angustioribus, sub linearibus s. subulatis; ovario disco dentato insidens, dentibus basi ~~petalum~~ adnatis, laciniis ~~[illegible]~~ majoribus ~~[illegible]~~ sub bis; stylis 3 profunde bifidis, laciniis ~~sub~~ bifidis (ovigerus 18–24) ~~constituentibus~~. Illinois, Missouri & Arkansas



mostly

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Hendecandra

171 Croton Lindheimerii n sp annuus ~~erectus~~, stellato-tomentosus, caule erecto, ramoso, foliis longe petiolatis, e basi ovata subcordata lanceolatis, acutis, repando ~~vel~~ dentculatis, s. subintegris; floribus spicatis ~~subsessilibus~~ masculis ~~superioribus~~, pleeribus, breviter pedicellatis; col 5 partito, petalis 5 linearibus fimbriatis, staminibus sub 12; ~~antheris~~ ovato-orbiculatis; fl. foemineis ad basin spicae glomeratis, ~~sessilibus~~, calyce sub 8 partito, laciniis ~~aequalibus~~, inaequalibus, parvis minutis, subulatis, ovario dense amoene dutato, insidens, dentibus parvis ~~[illegible]~~ laciniis calycinis majoribus ~~[illegible]~~ adnatis; stylis 3 bis bifidis Cotyledons 12

Dry Prairies, roadsides, often ~~covering~~ entirely covers old roads, from Mount ~~to the Bluffs~~ (also west towards Leavenworth & Mt Short). — May to ~~Aug.~~ Sept. — Stem 4 to 5 feet high. Congener with Cr. capitatum, from which it is distinguished by the greater size, the shape of the leaves and the smaller number of ~~stigs~~ divisions of the style. — Lower leaves 4–5 inches long 1½ to 2 inches broad ~~of the size~~ petioles 3 inches long upper ones smaller in proportion. Seeds smaller and not so much compressed ~~orbicular~~ ~~this~~ those of Cr. capitatum

this is Hendecandra? multiflora Torrey & Fremont report 1843

Croton plattensis ? ~~annuus~~ foliis petiolatis ovato lanceolatis integris ~~superne~~ glabris, infra stellato tomentosis pubescentibus, floribus masculis spicatis pedicellatis, calyce 5 partito segmentis ovatis acutis, petalis nullis, staminibus 7–8 adsuperioribus residentibus — fl. foemineis ?

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12. Lindheimer Collection 1843

Croton maritimus fl. masculi spiratis ?
cal 5 fido, petalis nullis, stam 12. disco insidentibus
anth. ovatis; fl. foem glomerulis segregatis
cal. 5-6 partito ~~petalis nullis~~
ovario disco obtriangulato insidente, stylis 3
brevissimis, bis bifidis. — The only shrubby Croton of U. S.

Croton elliptica Nutt cal. mas: 4-3 partito.
petalis 3 stamenibus (3-6.) sub 4 segm. sixto minimo subdato
cal fem. 4-6 partito, carpiis 2, stylis 2 bipartitis, ovario disco distincto insidente
capsula 4 valvis unilocularis (stigm 4)

Ref?
179 Urtica gracilis Nutt? probably — but I
can not compare any description

173 Croton Argyranthemum Mx. whole plant
even petals and styles covered with silvery
fimbriate scales, attached by the middle
(stellate hairs, membranaceously connected)
fl. m. cal. 5 partito petalis 5. ~~obo~~ spathulatis, basi
lanatis, stamin 15-20. Anthers linearibus,
fl. fem. cal 5 partito ovario disco annuo
obtriangulato insidente stylis 3. ~~bifidis~~
~~vel bis bifidis~~ ~~stigmatis~~ ~~sub bifidis~~
~~vel~~ segmentis, iterum plus minusve divisis, s. integris
(stigmatibus 8-12). — The only perennial
~~Croton of~~ North America

what is Croton elliptica Elliot? probably ~~perhaps~~ C. capitatum Mich?

206. Scirpus near lacustris, but
distinct, by having only two stigmas;
glumae also smooth, somewhat
fimbriate
in British swamps Galveston Island
May 1843

205. Heleocharis glumes reflexed, no rib
obtuse, scarious on the margin. tubercle a little
smaller than the ovary much smaller than the obovate
compressed seed, 6 setae as long as seed.

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Creeping through the sand on Galveston is Cuc. May.

203 Fuirena hirsuta Ell.
springy wet places west of the Brazos, Aug. 1843

203 Cyperus tetragonus Ell ?
Cut style 3-cleft.
Dry prairies near Houston, May & Jun

202 Cyperus ovularis Torr.
Dry & wet soil, open places Houston
April to June. (two species?)

201 Cyperus vegetus Lin wet prairie
Houston May & June

200 Ruppia maritima Lin
Salt water ponds Galveston
May 1843.

199. Cooperia Drummondii
Dry Prairies from Galveston to the Brazos, frequent, but mostly solitary
flowers from Jun to Oct & Nov; mostly
in July, but only after heavy rains and wet weather

197 Aletris aurea Wall. Prairies
Houston. April

198 Phalangium ~~vaulcantum~~ angustum. n. sp.
foliis linearibus, apice longe acuminatis
scapis floridis; sepo foliis superantibus
basi ~~[illegible]~~ lanceolatis membranaceis
alabastris oblongo linearibus subulatis, pedicellos ~~erecto~~ patentibus
subequantibus; petalis lineari bus
obtusis, staminibus diplo sepentibus.

Southwest Missouri, Arkansas & Texas, in flower about ~~two~~ 3 weeks after the nearly related Ph esculentum in Missouri & Arkansas & the middle of June in Texas in April & May. — It is a

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much more slender plant than the common form, higher with narrower leaves, shorter narrower bracts ~~[illegible]~~ with smaller flowerbuds (alabaster) which are oblong lanceolate not obovate and with narrower, linear petals. It may be a variety of Ph. esculentum. In the neighborhood of Fort Gibson I find it in flower by the middle of June when Ph. esc., had ripe seeds! in the Kickapoo prairie in South Missouri it was not yet in flower, by the last days of May and Ph. esc. ~~[illegible]~~ past flowering by two weeks.—

194 Allium mutabile Mich. Dry open woods, April. Houston.

This is Michaux's & Elliott's plant. and it occurs ~~also with~~ with umbels and with a bulbous head, with and without some flowers. The capsule is in all our specimens one seeded, as Elliott has it; capsule trisperma of Spreng syst II, 37 is certainly a mistake; — Usually red — but we have also a white variety

I find in my Herbarium two Allium collected by Oger — the upper Missouri both are remarkable on account of the ovary being crowned by six erect scales (therefore angles of capsule 2 dentate above as Mutt gen I, 215 has it); but one has white long acuminate petals and a petiolated bulb, and the other red sub acute petals and ~~bulb with~~ funiculated bulb.

angular Dust

stellate Sing.

195. Smilax lanceolata Lin (~~[illegible]~~ Elliott! Pursh?)

July in rich shady soil near water courses, Houston, climbing very high. The root forms large tubers or knots, which are called Indian bread in Texas. The stem is aculeate below. Leaves ovate, but in the specimen from the same locality we find the narrowly lanceolate

194. Pontederia lanceolata Nutt

~~[illegible]~~ in brackish water, near the coast near Lynchburg & Hamilton July! ~~[illegible]~~ only a variety of P. cordat.

0 1 2 3 4 5 6 7 8 9 10 cm
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leaves mostly obtuse at base, some acute, nearly rounded

193 Linum ; near D. marginatum but distinct by the leaves of the perigon all acuminate mucronate, nearly equal, longer the the obtuse capsule ; also Brandons.

The D. marginatum (St Louis & Texas) the external perigonial leaves are ~~acuminate~~ mucronate much shorter & narrower than the internal ones and these ovate, obtuse, scarcely or the margin, as long as the capsule.

The mentioning Linum is polygynum & is entirely Ell (of Gloria) & not polygynum Mich & Ell is the genuine dyscrasia, gleaning, 213 & 1842 204 (1842) Mich's D. tenuis & 65 & 66. & Gelert is bufonius 154 (1840) is the true D. marginatum 79 & Gelert (Ryellow is of Michaux & Pers & Gelert) is the yellow or yellow ones. —

214 (1842) Linum effusum Lin

192 Thalia dealbata Fras.

Swamps & the Prairies south of Houston Sept.

Not with three embryos, two lateral ones failing, the central one developed curved — sent vest. (2) sat horset (30)

191. Spiranthes vernalis n sp.

radice fasciculata, caule foliato foliis lanceolato linearibus convolutis ~~spiralibus~~ segmentis perigonialibus oblongo linearibus, superioribus latioribus calenulibus angustioribus longitudine aequalibus pari labellum reflexum crenulatum (superantibus aequantibus s.

13 Lindh. Collection 1843

Moist Prairies, Galveston & Houst.
April & May. — ~~Stem~~ ~~1½~~ 2 feet
high; leaves wispy, ~~[illegible]~~
2–3 lines wide, 5–6 inches
long; 2 lines wide; spike 2–6 inches long,
twisted; bracts white a little longer than
the germ; flowers of the size of Spiranthes
but remarkable distinct by the
small lip, which is not as long as the other segments of the perigonium,
~~and which differs in this respect from~~
~~all the others species~~

Spiranthes cernua radice fasciculata
foliis vaginantibus. perigonii
segmenti linearis oblongis; labello exserto
~~longiore~~, oblongo ~~[illegible]~~, acuto; ~~[illegible]~~ 3.
St Louis Sept & Octob. parce crenulato

Spiranthes ~~cycloglossa~~ obtusa radice
fasciculata, sub folioso, foliis
vaginantibus; perigonii segmentis superioribus
ovatis obtusis. labello parce longiore
obovato ~~[illegible]~~, obtuso crenulato.

Arkansas, ~~Octob~~ foliis nullis, vaule
vaginato; Texas, foliis binis,
vaginantibus; fl. Octob. —
The Texas plant is ~~much~~ larger
and has ~~three~~ leaves more developed
but the flowers are identical.

Spiranthes tortilis (tubero ordinali) unico horizontali
(foliis radicalibus linearibus) vaule
vaginato. bracteis, convolutis
acuminatis ovariis subsequantibus
labello ~~lobato~~ obovato lobato i.
crenato.

Arkansas, rocky hills, Sept.

Spiranthes gracilis. radice fasciculata
foliis infimis ovato lanceolatis, in petiolum
attenuatis superioribus vaginaeformibus
bracteis ovato lanceolatis, acuminatis,

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ovarium superinferum, labello oblongo ~~sub~~ tetramorphis, ovato. ~~Florida~~, ~~Mississippi~~ & Arkansas Texas; ~~Sept. Oct.~~ Aug & Sept! Specimens for Dayton all ~~in May~~ for March to May; dry Prairies Galveston & Houston &c we can not distinguish it for the north form.

190 Habenaria auriculata. R sp? radice tuberosa, tuberibus 2 indivisis; ~~Caule~~ ~~foliosa~~ foliis lineari-lanceolatis, elongatis superioribus setaceis; ~~floribus~~ germen stortum (non tortum) acquentibus perigonii laciniis exterioribus lateralibus basi auriculatis triangularibus, labio laciniis lateralibus interioribus similibus, oblongo linearibus, obtuso, calcare longissimo sursum curvato. in Houston.

Moist prairies, April — June

~~A remarkable~~ species; ~~perhaps~~ ~~strong~~ remarkable on account of the ovary not being twisted the open lip therefore should upwards but the lip is hardly distinguishable from the two other inner segments of the perianth. — The lateral outer segments have a large blunt tooth or auricle at their base upwards so that they ~~appear~~ ~~form a~~ ~~one~~ triangular. the flower bud ~~has~~ therefore ~~appears~~ gibbous upwards.

Is it perhaps a Gymnadenia?

189 Moraea

Open woods & Prairies from Houston to the Brazos June & July — (Also in Louisiana)

Probably a Mornea, ~~and already described~~; it is distinguished from Nemastylis under which name I have received it from Louisiana by the anthers ~~with the~~ which the cells are connected by a broad membrane, and by the long style (with three bifid stigmas) and by the ~~short~~ small inner segments of corolla. — Nemastylis has ~~equal~~ segment equal anthers linear convolute after ~~flowering~~ opening shedding the pollen, and styles short with 6 long segments of stigma. I have it from Arkansas & Texas. —

Both plants without flowering are very similar, but Nemastylis may be distinguished by the membranaceous margin of the long sheath of leaves and of the bracts; Mornea has not that membranous margin of the bracts and the stem-leaves are nearly without sheath. —

I must remark however that the Plant I take to be the collection there is notice or a very short one and the pen flower (not one flower) and leave linear lanceolate not ~~exterior~~ tubulate segments.

187. Hypoxis erecta L. ~~B. australis~~ foliis planis, graminei, scapo pauci-florum ~~duplo~~ longioribus, bracteis minutis scariosis, perianthio ~~petalis~~ oblongis, 3, ovato lanceolatis acutis, exterioribus apice barbatis, capsulis subglobosis perianthio persistente, bis terve longiore coronatis, seminibus in loculis singulis bisserialibus subsenis.

β. australis foliis linearibus scapum subuniflorum aequantibus.

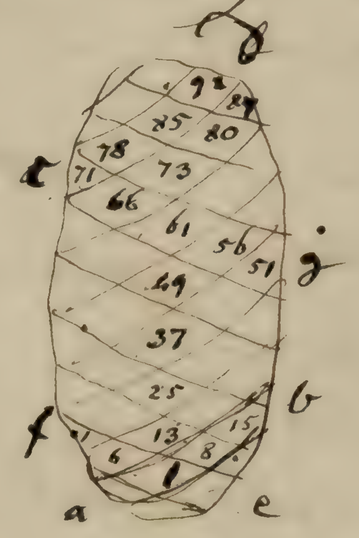
Common in dry clayey soil, Missouri to Texas; fl. in March till May. β. Texas in Prairies which have been burnt in Spring. fl. in July. — We have given the Character ~~description~~ of the Common H. erecta again, ~~in order~~ to distinguish it well from the next species. The principal difference we find in the short capsule with 6 rows of seeds, besides that it is usually smaller, has narrower leaves and a shorter thicker bulb ~~at base of stem~~ coming from square, much smaller scarious bracts.

188 Hypoxis leptocarpa n. sp. foliis planis graminei, scapo pauciflorum multo longioribus bracteis omnibus s. superioribus solum scariosis, subulatis, oblongalis

perianthii segmentis petalis lanceolatis acutis extrinsecus sparse pilosis; capsulis pedunculatis trigonis perianthium persistens subsequentibus, seminibus ∴ bonis sitque uniseriatis sub quaternis.

In Houston

In sandy soil along water courses from to Arkansas. Seeds similar to those of H. heterophyllus, covered with rough black testa; but those as large though the flower is only half the size as the other. The fusiform bulb at the base of the stem is in this species more elongated, and (probably on account of its growing usually on steep margins of brooks) ~~more~~ uncommonly horizontal, so that the stem is ascending. The remains of the bulb of last year are found on the side (not at the base) of the new bulb.



Nyris Cattshill ing 2 de Rifty ab fid 7 Zeilen 2 d cd ist die Fortsetzung von ab. — 2 de Rifty ef fid 5 Zeilen, und gh ist die Fortsetzung von ef. Auf diese Weise kann man 12 Fortsetzungen Zeilen zählen

~~allerdings Reihe ist:~~

~~2. 5. 7. 12~~

~~oder spiralförmig ist:~~

~~1. 1. 2. 3. 5~~

1.8.15.22.29.36.43.50.57.64.71.78.85.
1.6.11.16.21.26.31.36.41.46.51.56.61.66.71

In 5 Umläufen gebildet ein Cyclus = 12 Blätter vollendet. Es der 13 Blatt über dem ersten.

14 Lindheimer Collection 1843

1 kleinste Schwalbe rechts (zu links) eine zum Theil St alle Schiffen
2. nächstfolgende Schwalbe links (zu rechts) abzuschneiden
zum Theil wieder eine alle Schiffen
3. 2 Schwalben rechts
4. 3 Schwalben links
5. 5 Schwalben abfallend links
6. 7 Schwalben rechts
7. 12 Quadratfuß Boden

Dies ist bei meinem Xyris Kyris,
wie Nr. 2 und der Alabama Xyris

185. Xyris 4 species are amongst Lindheimer's
and I believe I can distinguish 4 others
among my specimens from the Southwestern States.
I will not attempt to describe all from
to identify them. I do not know
which of them I have sent you.
I will however distinguish the 4 Texan species.

185. 1. Xyris from the Brazos, stem anceps; edges (very scabrous), denticulate; leaves linear, grass like, long; bracts obovate, slightly & irregularly crenulate; two lateral sepals acutish fimbriate and irregularly incised; capsule obovate obtuse.

Springy places in the Brazos west of the Brazos Lady.
If not named yet it ought to get the name Xyris scabra.

186. 2. Xyris, together with the forgoing. —
stem many angled, hardly compressed; leaves linear setaceous much shorter than the stem; bracts obovate irregularly ciliate; two lateral sepals acuminate subaristate, very slightly ciliate on the back, capsule obovate. —
(Xyris angulosa Ph. ciliosa)

3. Xyris together with the two forgoing.
small (only 8 inches) stem compressed, but also striate or slightly multangular
leaves setaceous, short; head globose
bracts obovate slightly & irregularly crenulate

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Xyris minor

two lateral sepals subacute, fringed and notched; capsule obovate obtuse. ——

4. Xyris Swamps near the Mouth of the Brazos. — September (also Alabama Buckley) the largest species, heads an inch long or more, — leaves broad, long — stem compressed two edged smooth leaves broadly linear long; heads oblong finally cylindrical bracts obovate, very entire; two lateral sepals acute, deeply and irregularly fringed & notched. capsule emarginate obovate. — Xyris caroliniana

184 Commelina angustifolia Mich
open woods, also in cultivated grounds
Houston May.

182. Sagittaria lancifolia Ell?
scapo subramoso; bracteis ovatis acutis, subpubescentibus; ~~alpha~~ fl. fem. breviter, fl. masc. longe pedunculatis; ~~alpha~~ basi subpubescente; ~~alpha~~ rostratis foliatis; stam. 20–30; in ponds with clayey soil near Houston, June & September. Larger species with broader leaves ~~183~~ and larger flowers with 40–50 stamens for British swamps, near the mouth of Buffalo Bayou.

3 fec

183. Sagittaria stolonifera n. sp.
~~ovata~~ (radicante, stolonifera); foliis submersis late linearibus obtusis; emersis linear-lanceolatis 3–5 nervis; scapo simplici; ~~floribus~~ bracteis ovatis acutis v. obtusiusculis brevibus, pedunculis sublongis omnibus elongatis; staminibus 12–16; ~~nucibus~~ compressis oblique subobtusiusculis breviter mucronatis.

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Fort Wear Houston, coll. – September (second flowering?)

I have also one with bulbous roots, lineari, rigid leaves, coll. with panicles. – March also another species?

213. Erigeronti ~~Fox~~ prostratus n. sp. culmis (annuus?) prostrato, radiante ramoso; foliis vaginis ore barbatis, sparsis pilosis subfasciculatis; ~~foliis ligulas referentibus~~; panicula composita laxa, corymbosa, spiculis pedicellatis, 12–18 floris; gluma exteriore acuta trinervia, nervis ciliatis & scabriusculis, interiore acuta acuminata, 3 nervia, pilososcabrida, ~~&~~ interior ~~&~~ hyalina, & duplo ~~longiore~~ superante.

Sandy places in the Brazos bottoms. July.

214. Erigeronti radicans n. sp. culmo (annuo?) prostrato, radiante, ramoso, ~~foliis~~ vaginis ore barbatis, ~~vaginis~~ foliis pilosis, subfasciculatis, ~~foliis ligulas referentibus~~; panicula composita laxa, corymbosa, spiculis pedicellatis, 16–22 floris, gluma exteriore acuta trinervia, nervis ciliatis & scabriusculis, interiore acuta hyalina laceram, paulo superante.

Sandy places in the Brazos bottoms with the last species.

In the same locality was collected the nearly related Erigeronti repetans ~~n.~~ which in habit is similar ~~with~~ to P. radicans but has ~~more flor~~ spikes with 18–26 flowers ~~and~~ florets only half as large and shorter glume barely half the size of the outer one; for P. prostrate it is distinguished by ~~the~~ looser panicle, by the smaller flower spikes, much smaller florets, by the outer glume acute, (not long acuminate,) ~~more glum than~~ and by the broader inner glume with two more strongly ciliate nerves.

212 Oxydemis attenuata Nutt. Elevated soil west of the Brazos. August

211 Andropogon avenaceus Mich
1st Rain Hunt Sept.

210 Panicum hirtellum L in
Shady woods near water courses
~~Sept~~

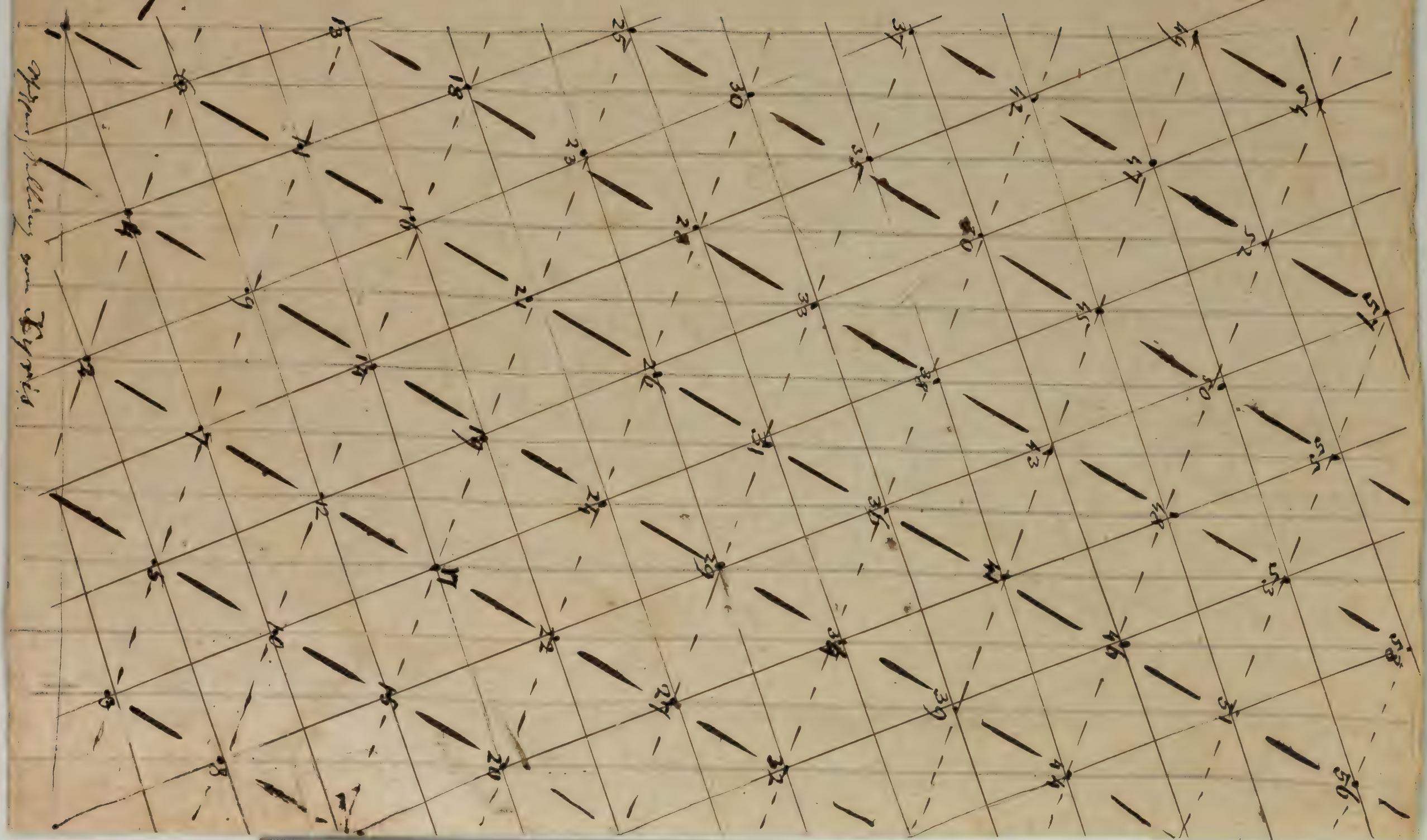
209 Uniola ~~gracilis~~ spicata L. Mich
shady woods Hunt June

208 Koeleria Tranquillitatis Torr
Open woods Attapulgus
April to June

207 Spartina glabra Muhl.
~~Black~~ salt marshes near
the coast July —
specimens for Gelsonts — flow — May

Europ.

Fr. 1824



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1. fruit sessile

A. Segments of calyx equal in length to the tube

1 ovary equal to tube ~~or rather longer~~ — *Gauri Drummondii*

2. Ovary shorter the tube, often half as long;

a. bracts deciduous

α petals rose colour

x. obovate with short claws — *G. biennis*

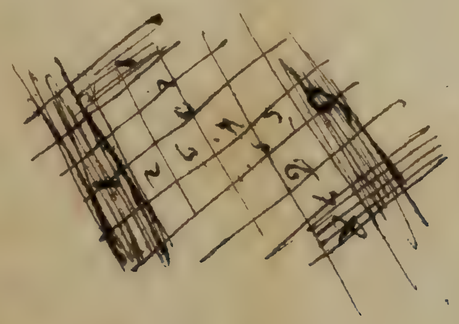
xx spatulate with long claws — *G. exaltata*

β. petals and anthers deep scarlet — *G. purpurea*

b. bracts persistent

α. shorter than ovary, petals scarlet.

x



1 Lindh. Collect. 1844

Clematis fr Lackstry? without ticket, is near Cl. virginiana, but appears distinct on account of the ovate acute, not reflexed sepals, not acuminate; and the long tail of carpels which are hardly pubescent: Clematis medicaudata perhaps C. Pitcheri?

7. b. Corydalis Carolinia DC. female plants, in fruit, apparently more frequently than the male plant with hastately 3 lobed leaves. — On the Colorado river. October.

215. Bursenia petiolata Pursh — Clear rivulets — the prairies between Brazos & Colorado. April July

8 Streptanthus hyacinthoides Hook; flowers nodding; siliques erect; our specimens mostly simple, with linear leaves, some larger & branching, with lanceolate linear leaves. Prairies between Brazos & Colorado April & May

Cheiranthus hesperidoides Fl. Gr. Shady damp woods, July — Ought to be examined again — perhaps a distinct species; no leaves lyrate, all simple, radical ones ovate orbicular or cordate-orbicular, —

216 Draba cuneifolia Nutt. Dry gravy places near Catspring, west of the Brazos. March — Amongst our specimens we find some with nearly and others with entirely glabrous smooth silicles. — This would indicate that Draba Caroliniana Walt and D. micrantha Nutt which differ only slightly in the pubescence of the silicles are only varieties of the same species.

218 Nasturtium tenuifolium Hook & Arn. Sandy open places in the Willowrock — Colton February & March. — Siliques incurved in some specimens nearly erect in others more patulous. — In some specimens collected in sterile places in the Prairies we find the leaves ~~simply pinnatifid~~ less divided.

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219 Silene conoidea Nutt & more gray
sterile sandy places west of the Bonyo. (2 Prairies)
A very gray canescent form.

217 Viola auriculata n. sp. annua ~~multicaulis~~
~~subdecumbens~~; caulibus pluribus decumbentibus canescenti hirsutis
foliis sparse pilosis inferioribus lyrato pinnatifidis v. sinuato dentatis, ~~superioribus~~ basi
attenuatis superioribus ovato lanceolatis
basi cordato-auriculata sessilibus,
v. semiamplexicaulibus, ~~sparsi~~
sub. dentatis v. integris; ~~petiolis~~ obovato
~~oblonga~~ - spathulatis ~~calyce~~ sepala pilosa
colorata subduplo superantibus; ~~stamina~~
filamentis e basi latissima erecta subulatis
antheris oblongis; ~~silicula ovata~~
3-4-ovulata; - Siliculis vix stipitatis
globosis glabris, stylo non ~~vix~~ globoso
brevioribus; seminibus sub 6 marginatis.

Dry ~~prairies~~ prairies near San Felipe
on the Bonyo, Tex. March.

It is very possible that this may be
one of the already described species, but
it appears to me to differ from all as
they are described in Torr & Gr. Flora.
I could compare only V. grandiflora;
this has stellate pubescence, green canescent
sepals, obovate petals, sagittate anthers
V. rupanda has subulate filaments
V. angustifolia has stellate pubescence, and
leaves attenuated at base; V. Nuttallii
has leaves narrowed at base, and a different
silicle. V. gracilis has subulate filaments,
leaves narrowed at base, seeds not
marginated; and V. Shortii has very long
styles.

To the description of V. grandiflora I
would add from the ~~examp~~ examination of
a single specimen: sepals green, stellately
canescent as the whole plant; anthers
sagittate with spreading lobes; leaves
sessile, ~~rounded~~ somewhat dilated at base

11. Polygala leptocaulis Torr & Gr along rivulets
west of the Bonyo, May

220. Polygala alba Nutt P. Boykinii Torr & Gr.
lower leaves pequally obovate spathulate

Prairies west of the Brazos, April & May.

221 Hypericum maculatum Walt.
margin of woods, and open woods from Galveston to the Colorado. May.

222. Paronychia dichotoma Nutt On Sandstone rocks near Industry on the Millcreek, west of the Brazos. Septbr & Octobr

18. Paronychia Drummondii T&G. Sandy prairies west of the Brazos, ~~May~~ in groups together. — May. — The specimens, differ from the collection of 1843 in ~~[illegible]~~ by being young ones with fine leaves, just beginning to flower.

223 Arenaria P. Texana Nutt. Prairies west of the Brazos March. Petals twice the length of the Calyx emarginate.

224 Phlox trifolia L & P. mollis T&G along water courses west of the Brazos April. Also near Houston.

24 Silene Lindheimeri Dry prairies west of the Brazos, June to August Corolla yellow, 12 to 16 lines in diameter. — I have seen forms of Silene Elliottii T&G which ~~[illegible]~~ resemble somewhat ~~their~~ plant, as the pedicels are sometimes elongated though they never reach the length of the leaf. × the leaves are narrower, smooth above, and the capsule only ~~[illegible]~~ about 9 in number, and nearly orbicular and only slightly bimucronate.

× — & the flowers the same size

225 Aesculus Pavia L & P. discolor T&G. Thickets along the banks of Millcreek west of the Brazos. March

226 Sapindus marginatus W. Fertile woods near streams west of the Brazos. fruit ripe in August. — Popularly called wild China tree, grows a tree of about one foot diameter

227 Rhamnus carolinianus Walt Small trees, forming thickets in wet places in the Prairie

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west of San Felipe. fl in May

β. parvifolia; leaves only 2 to 3 inches long, with 7 to 9 pairs of lateral nerves, pubescent below on the ribs below, leaves and flowers ~~condensed~~ crowded. — With the other.

228 Mammillaria lasiacantha Pursh in the beds along the Millcreek, west of San Felipe in fl in March

29. Rhynchosia minima DC. Clayey soil between Bexar & Colorado. Sept.

229 Tephrosia onobrychoides Nutt. Sam. Bernardo's. Prairie, west of San Felipe May. — Stem ascending 1 to 2 feet high; pubescence rusty short, appressed; calyx teeth short hispid not villous as in the variety sent for Hooker and No 32

Psoralea cuspidata Pursh; β. obtusifolia; the texan form is from the Missouri plant distinguished in the same way as the texan form of P. esculenta; the leaflets are broader, obovate, obtuse; calyx teeth also more equal, and sometimes obtuse, rarely as much acuminate as in the Missouri plant.

230 Astragalus carnosipes Ker Prairies west of San Felipe, April

39 Dalea aurea Nutt. Dry prairies west of the Brazos in May & June

40 Petalostemon obovatum Torr. & Gr. 4. Dry prairies west of San Felipe July

231 Lupinus subcarnosus Hook Branching from the base; from 6 to 15 inches high; flowers smaller paler and inflorescence more silky or lanuginous than in the nearly related L. texensis Hook, of which we find a few specimens mixed with those of L. subc. — Prairies west of

2. Lindheimer Collect. 1846

H. Bravo; fr: April

232 Cassia chamaecrista L. β cinerea Torr.
perhaps a distinct species; characterized
not only by the characters noted in Torr's Flora
I p. 396, but also by the stipitate gland
on the petiole below the lowest
pair of leaflets; the setaceous glands
between the 4 or 6 lowest pairs ~~of leaflets~~ (wanting in C. Chamaecrista)
and by the ~~number~~ indistinct (not very plain) veins
~~nervures~~ of the acute (not obtuse) leaflets.
The five alternate anthers are
shorter. — Sandy places in
the woods along the Colorado river. Aug.

233. Algarobia glandulosa Torr. shrub or
small tree, 6–8 inches thick & 10 feet high;
in low prairies on the Colorado. Fruit ripe
end of August. This plant ~~becomes large~~ called in Texas Mesquit-tree is first found as a
small shrub in the St. Fernando Prairie between the Brazos & Colorado, and becomes larger and more frequent in going west;
~~from the wolf bayou tree~~, all characters
~~the bayou~~ of a new vegetation; in
the mushit thickets on the Colorado a
small Echinocactus (E. setigerus) is common;
~~and~~ on their borders is found the singular
Opuntia ~~tunpo~~ clados (No. 244); and on
naked places, especially on old ~~forsaken~~ deserted
anthills a large Echinocactus (E. ring-acanthus)
often a foot in diameter strikes the traveller with
the impression of a tropical vegetation.

Our specimens of A. glandulosa ~~have~~ The leaflets in
an partly linear ~~leaflets~~ one line wide, ~~but~~
~~mostly~~ frequently ~~lanceolate~~ oblong up to 2 lines wide
but also ~~ovate~~ elliptical obtuse half as wide as long
often on the same specimen. This plant
is very remarkable on account of the drupaceous
structure of the fruit; the inner part of the pericarp, nearly cartilaginous,
separates from the pulpy
parenchyma, and encloses (separately) each seed
forming as many nuclei, as there are
seeds. This structure appears to
be found ~~again~~ amongst the Leguminosae
only once more in Detarium from Africa
which however is one seeded.

234 Schmalkia angustata Torr. & Gr. prairies between Brazos & Colorado Rivers to Aug.

235 Vachellia Farnesiana W & A. many of the Brazos bottom woods, and sparsely in the Cow prairies westward, and doubtless indigenous. — fl. March

235 Darlingtonia californica DC. y. gladulosa Torr. Wet Prairies west of the Brazos. fr. in July. — We have also seen the slender and illinoiensis for the seaboard of Texas.

236 ~~Amygdalus~~ Prunus glandulosa Hook. ~~Prunus glandulosa Hook, Torr. fl.~~ I do not doubt as proved by a nearly ripe fruit, for one of our specimens; it is pubescent and dry. — Low shrubs on sandy Hills in the Prairies west of the Brazos fl. in Feb. — Fruit yellowish red ~~of the size~~ & is large as a middle sized cherry (Lindheimer). — Drupe of one specimen is a half grown fruit, entirely juice less and still preserving the pubescence of the ovary

237. Prunus gracilis n. sp. ramis subteretibus; foliis oblongo-lanceolatis, infra saepeque apicibus, grosse ~~et~~ irregulariter serratis (serraturis plerumque patentibus) supra glabri nitentibus subtus tomentoso-pubescentibus; petiolis brevibus eglandulosis; stipulis setaceis glandulosis; petiolos; aequantibus; umbellis 2-3-floris pedicellis calycibusque pubescentibus; calycis laciniis ovatis obtusis; petalis orbiculatis; ovario glabro. — P. Pumila

In ~~post~~ open postoak woods (Quercus obtusiloba), ~~forming~~ in small groups West of the Brazos, — fl. March. It is the Pr. Chicasa β. normalis of Torr. but I take it to be a distinct species characterized by the small (about 1/4 inch long)

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very pubescent leaves, with mostly spreading ~~and~~ ~~neglands~~ the very short (1/12 lin. long) and not glandulars petioles. The small flowers are pubescent but not glandularly scented; outside lobes of the calyx. We find no notice of the fruit in the lists. The species is intermediate between Pr. Chicasaw and Pr. glandulosa; it is as low as the last one, with nearly as small leaves, but is a much ~~more~~ slenderer plant, with elegantly shaped leaves.

(in the Delawares we find sometimes the sensitive mimosa proper).

other it is called "Postoak plum" or our specimens are a few fruits of the size of the fruit of Cerasus serotina perhaps not full grown though blackish

60. Gaura sinuata Nutt roadsides, ~~in~~ naked declivities, ~~[illegible]~~ of the Bravos; April & May.

240 Gaura drummondii Torr stem & leaves canescently hairy; leaves in our specimen mostly undulate & sinuate-dentate; calyx & tube as long as the ovary, and segments mostly much longer; petals ~~becoming~~ turning ~~into purple~~ deep red (rather so in the ~~fresh~~ ~~living~~ flower when first opening?). The very peculiar shape of the fruit is well described in the Flora. — Naked soil roadsides in Prairies, ravines, or steep banks of rivulets; west of the Bravos; May.

241. Gaura parviflora Dougl on old anthills in the sandy soil of the Prairies between Bravos & Colorado July & August. — The Ovaries as well as the fruits in all our specimens are not glabrous but canescently pubescent; & the fruits acutish.

239. Gaura exaltata. caule erecto apaniculato-ramosissimo, adpresse pubescente, foliis lanceolatis s. lineari lanceolatis, supra

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infraque angustatis, sparsim repando-denticulatis adpresse puberentibus; floribus in spicis laxis ramosis sessilibus; bractiis linearibus deciduis; calycis segmentis tubum plerumque superantibus ovario multo longioribus, petalis spathulatis longe unguiculatis, calyce adscente, staminibus brevioribus; nuce sessili ovata subacuta 4 sulcata, nervis inconspicuis intersectis notata

Prairies at the mouth of Wood, ~~from Mont~~ between the Bravos ~~to the~~ Colorado August & Sept — 6 to 9 feet high often exclusively covering large spaces of ground. — Near Gaura biennis, but taller more branching leaves narrower flowers much smaller petals spathulate, and fruit shorter and thicker.

242 Glenosiphon virgatus Spach. High. Prairies, often on the Colorado rocky soil, sparsely. July

238 Oenothera serrulata Nutt ♂ spinulosa Torr. — nearly smooth with large flowers, petals often 1 inch and even more in length; stems many from the same root mostly simple or branching at base. — Sandy dry or moist prairies west of the Bravos May & June.

55 Oenothera speciosa Nutt Prairies west of San Felipe in heavy soil. fl — March & April

243 ~~Ludwigia~~ Jussiena occidentalis Nutt along margins of rivulets where they are not shaded between the Bravos & Colorado. — fl — July — Petals obovate.

244 Opuntia (carpo-lados) frutescens, caule erecto ramoso, ~~cylindrico~~ teretiusculo, ligneo, cinereo duplicato ~~opaco~~ aviolento, ramis junioribus articulatis papillosis subcylindricis angulatis brevioribus viridibus ... flores in ~~pentorum~~ fasciculis ad lateralibus s. sub. ~~ad apicem~~ gerentibus ~~proferentibus~~; fructibus obovatis carnosis (scarlatinis) papillosis ~~pilifornibus~~ ~~papillosis~~ obsitis; semina paucia (alba) compressa reniformia includentibus

3. Lindh. Collect. 1844.

persistentibus, ~~et aquitem~~ ~~radicis~~ proliferis
was collected.

This remarkable Cactus grows as stated above near the Th. Sheet of Algarobia glandulosa on the Colorado; August it acquires a height of of 3 to 5 feet, has a branchy ligneous stem, covered with a gray bark and sometimes over with lichens; ~~and~~ it bears bunches of small ~~pilifoss~~ nearlike spines, with one larger one (about 4-6 lines long) which disappears on the oldest stem. The wood is very close grained, and hard. The young branches are green and angular and bear the last short (about 1 inch long) articulations which ~~break off~~ very easily break off. Our specimens are not in flower but are covered with ~~but~~ the obovate umbilicate fruits (about 8 lines long) which are fleshy but not juicy and contain very few (2-5) white compressed seeds. — The most remarkable circumstance however is that the fruits frequently bear ~~many~~ (even 4 or 5) or more new branches at the upper bunches of spines, either fall off with them or become finally persistent, dry up, and form part of the stem.

× they bear when young as the other Opuntiae short terete subulate leaves, and in their axilly ~~the~~ bore one larger spine and above this a bunch of small ones.

This species ~~Cactus~~ is apparently nearly allied to Opuntia fragilis Nutt., but is distinguished by the high ligneous stem, the mostly lateral position of the flowers on the branches, and the fleshy fruit.

Besides this Mr Lindheimer has sent us 7 other Cactaceae, most of them living specimens;

2. Opuntia without fruit and flower, probably O. vulgaris Mill. several feet high with large obovate ~~flow~~ joints, from the Brazos.

3. Opuntia, perhaps O. missouriensis DC. low with smaller orbicular joints ~~very spiny~~ with large straight numerous brown spines and ~~numerous~~ bunches of also brown prickles which are longer than in the other species. Flowers yellow in May. On sterile prairies 22 miles west of Houston.

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4. Mamillaria ~~simplex~~ ~~cespitosa~~ similis ♀ radiated whitish spines at the apex of the tubercule, surrounded with a tomentum at their base, nearly equal in size, spreading horizontally; fruit (axillis globis) ~~tomentum~~

cespitosa, tuberculis ovatis apice spiniferis spinis ~~aequalibus~~ radiantibus albidis, floribus sub lente puberulis, basi tomento ~~ortis~~ circumdatis; floribus sparsis, baccis globosis scarlatinis. —

of the size of a large pea & berries scarlet rather dry with numerous black, subglobose seeds with a elongated white hilum. —

On Sandstone rocks near Industry, west of the Brazos. — Evidently very near M. simplex, but cespitose forming tufts of 6 to 10 inches diameter, with about 12 white (not red) radiating spines; flowers not seen.

5. Mamillaria ~~inopaca~~ Haw sulcata cespitosa, tuberculis ovatis, sulcis profundis supra notatis apice spiniferis spinis ~~subaequalibus~~ rectis radiantibus cinereis, in plantis senioribus spina centrali ~~saepe recta~~ sub valida ~~longiore~~ major; floribus centralibus, fasciculatis, fructibus ~~ovatis~~ oblongis (viresentibus) floris rudimentis coronatis polyspermis.

but a much larger plant

With the foregoing I would take it without hesitation for M. inopaca Haw if that was not described as ~~with~~ having bearded tubercules! Ours are very spiny, in the young specimens we find 8 to 10 nearly equal horizontal spines, but much stouter in the old ones, one becomes central erect or with a little curve backwards, and soft & long; flowers not seen; fruits (about 10-12 lines long) oblong, juicy, green, in a cluster at the centre of the plant (sessile) surrounded by a tomentum; full of black ~~shining~~ smooth shining ~~ovate~~ seeds which are compressed on one side towards the hilum.

6. Echinocactus ♀ setigerus subglobosus apice retusus, costis plerumque 13 (15-18) acutis ~~subobliquis~~, sulcis fasciculatis lanuginosis, flexuosis effluvante fuscis ~~exterioribus~~ 10-12 inferioribus brevioribus, 3 superioribus radiantibus 3-4 elongatis centralibus 1-3 longissimis ~~effluvante fuscis~~ erectis; floribus ~~parvis~~ minutis aureis supra fasciculos ortis; sepalis in tubum ~~longum~~ concretis apice liberis scariosis late ovatis acuminatis margine ~~laceris~~ fimbriatis; fructibus? seminibus nigris ovatis

(basi tomento cinctis)

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opacis minuti tuberculatis.

Common amongst the Mesquit-trees (№ 233) on the Colorado river. — Near Echin. hemispherus Link & Otto for Brazil but distinguished by the somewhat oblique and acute, not ~~obtuse~~ slight ribs which show at their bases a ~~tuberculate structure~~ transition to the structure of the ~~Melocactus~~ Mammillaria; — also by the very small flowers. — Our specimens are about 2 inches wide and 1/2 inch high; have 13 ~~ribs~~ ~~pretty sharp~~ (one of them 15) pretty sharp ribs, separated by deep grooves; the spines near the bottom are short mostly broken off towards the top they are longer — flexible those in the centre are the longest (about 15 lines long) ~~The flowers do not come from the cluster~~ We find a few shriveled up flowers and one incomplete fruit on one specimen; they do not originate from the clusters of spines but from an impression in the rib above them. The flowers are small, about 5 lines long ~~pubescent~~ surrounded by a tomentum; the seeds are punctiformis, black, not shining. —

7. Echinocactus? ~~Mammillaria gyrocanthus~~ ~~subglobosus~~ ~~apice~~ vertice ~~depressus~~ hemisphaerico-depressus ~~placentiformis~~ tomentoso costis 21 ~~rectis~~ verticalibus, acutis, subundulatis, aculeis ~~tenuibus~~ e ~~fasciculatis~~ ~~inaequalibus~~ ~~6-7 exterioribus inaequalibus sub~~ exterioribus areola ovato-lanceolata tomentosa ortis fasciculatis, compressis transversim striatis, cinereo rubellis 6-7 exterioribus inaequalibus subrectis, centrali multo longiore, recurvo; floribus ?

On (naked old) anthills near the Colorado river, "often a foot in diameter." — Our specimens are 8 or 9 inches ~~wide~~ in diameter and 4 or 5 inches high, none of them in flower, nor find we a notice of flower or fruit in Mr Lindheimer's letters. — Evidently nearest E. viridescens Nutt. from California with which it has the striate or assimilate, spines in common transversely

also near E. Corrigenus DC. or platy acanthus
Link & Otto who say nothing however
of the annulate spines, nor do they indicate
it in their figure. The shape of
our species however is different from
any other we find described it is
only half as high as broad and resembles
in that respect melocactus placentiformis rather
If really all the Echinocactii have smooth
spines, our species or Nuttall's E. viridescens are
easily distinguished from ~~the others~~ them by their
~~spines~~ ; ~~and from one another by their~~
~~they are known by their shape E. viridescens~~
~~being higher than broad therefore~~ and by
~~the spines of E. viridescens (apparently~~
~~straight~~ from E. viridescens our may be
known by its depressed shape (E. viridescens
being higher than ~~thick~~ broad) and by its
re-curved spines, of which the shorter
ones measure 10.-15 lines, ~~rather~~ and
the longer ones as much as two inches. Some
of the older spines we find covered with lichens.

sub-15
x spice depressa umbilicata
costis (e tuberculis concretis
ortis, 15, rectis
flavescentibus
e. ~~rubrae~~ lanceolata
e. areola

8. Cereus : caespitosus caespitosus
ovato globosus x ~~15 angulatus~~ ~~angulis~~
~~aculeis quinis rarius~~ sub (24) binis ~~confertissimis~~
radiatis (~~inaequalibus~~ lateralibus ~~majoribus~~
reconditis
longioribus ?

Gravelly soil near Cat spring,
west of San Felipe. — A singular
plant; probably a Cereus of reduced
dimensions, and near C. reductus DC
~~or the published Echinocactus, and with~~
~~of the angular growth~~ ? — The heads
are from one to 2 inches in diameter
and a little higher; among our specimens
are some growing out of the side of
another one, and others growing out
of its top, opuntia-like!
We find (mostly 15 ribs ~~but also~~
~~occasionally~~ from 12 to 17 but) ~~the ribs~~ evidently
formed by confluent tubercles
each of which bears on top a ~~bunch~~
~~stars~~ of bunch of about 20 to 26
~~radiating~~ spines radiating from an oblong
or lanceolate spot. — flowers apparently
not seen but
originating from between two clusters
of spines, and at base surrounded by long wool

of the smallest size and

x longest on the sides and curved backward

4. Lindheimer Collect 1844

Besides these 8 species we find in Mr Lindheimer's letter a mention made of a 9th species a small curious six angled Cactus on the siliceous hills near La Grange". But we do not find specimens in his collection.

245 Sedum sparsiflorum Nutt. Naked sandy spots in the San Bernardo Prairie between Brazos & Colorado. April & May.

246 Galium virgatum Nutt. Prairies west of the Brazos; in patches. April.

247. Diodia teniera Torr. receptacle in low fertile places of the Prairie 16 miles west of San Felipe. June. The plant is much ~~branched~~ depressed resembling in habit Mitchella Bosvii &c. All specimens ~~also I~~ examined by us also triarpellary.

248. Coelostylis laxum Torr. Shady ~~[illegible]~~ along Millcreek west of San Felipe. July

80 Gaillardia texana Torr. Dry prairies between the Brazos & Colorado. Sept & Octob.

83. Solidago leptocephala Torr. wet places in the Prairies west of the Brazos. Sept.

94 Echinacea angustifolia D.C. In clayey Prairies west of San Felipe. April & May

96 Helianthus occidentalis Torr. Sandy soil west of the Brazos, May & Sept. We have this and the nearly related H. praecox (No. 97.) and find them very distinct; ~~the leaves~~ besides the characters enumerated above we find the leaves of H. occ. always rounded and ~~deeply~~ coarsely ~~toothed~~ serrate; of a deep green colour; the involucral scales long; with subulate tips at first erect, not covering the disc before the opening of the flowers, afterwards all of reflexed; disc flowers with a very short tube and long and wide neck. H. praecox has ~~rarely entire leaves~~ the leaves of ~~they~~ are mostly abruptly ~~abruptly~~ attenuate into the petiole, more or less toothed, sometimes very slightly

in oth specimens. Disperm but never sensate
of a pale somewhat cinereous hue.
involucral scales lanceolate acuminate
adpressed, covering the disc flowers before
flowering. corolla of disc flowers with a
long tube and short neck; therefore the
disc flowers much smaller than
in the forgoing species, and nearly flat
in the other it is hemispherical. — Achenia
considerably smaller. — It flowered
in our North Climate the same time
as its relative, from June to October
in its native place (Galveston in Texas)
it probably is a biennial plant
germinating in the fall and coming to
flowering as early as April.

104 Gaillardia amblyodon Gray. in light sandy
soil west of the Brazos; May to July
rays bright red, brownish purple at base.

107. Hymenopappus artemisiifolius DC.
Sandy soil, open bushes near
the Millcreek (Micropolis) 16 miles west of San Felipe
in flower from March to September. One specimen
all. in March. Lowest leaves entire
or lyrate or usually pinnatifid ~~never bipinnatifid~~
with entire or even with invisibly toothed lobes

(in shady places.)

110 Marshallia caespitosa Nutt growing sparsely
~~singly~~ on dry prairies near the Millcreek. April.
Lowest leaves spathulate oblong 3 nerved
large, broadly ovate
acuminate but otherwise not differing
from the common form as described by

Stems 12 to 15 inches high

~~135. Cuscuta Gronovii B. grandiflora Tr & Gr
On Iva ciliata
and Ambrosia trifida wet places
Prairies near the Colorado river.
August. — Flowers a little larger than
in our specimens from~~

137. Herpestis cuneifolia Pursh Margin
of rivulets and ponds west
of San Felipe June

139 Buchnera americana L. & B. pauciflora
Open prairies west of the Brazos,
April to July.
145 Salvia azurea Lam. Prairies
east of the Brazos, May.
153 Monarda ? penicillata — Covering ~~whole~~
patches
large spots of dry prairie west of
the Brazos. May to August. It appears to take in
the inland regions of Texas the same
place of as the most similar M. fistulosa ~~towards~~ in
the lower, litoral, ~~plateau~~ districts. "
its peculiar taste is similar to ~~the~~ Catt
nip, but not so strong."
161 Ulmaria ~~[illegible]~~ ? scabulata Lin
wet meadows near San Felipe, April & May
175 Frasera carolinensis L. on banks of ~~streams~~
rivulets May to July. "Not stinging!!" L. Lindh.
169 Stillingia sylvatica L. Prairies
west of the Brazos, May.
184 Commelina angustifolia Mich. Open
groves, San Felipe, May & July
189 Moraea — in wet Prairies
between the Brazos & Colorado rivers
April — August.
198 Phalangium — angustum. Dry prairies
east of the Brazos, April.

174 Euphorbia bicolor.

249. Aster Drummondii — M ~~In thickets~~ and

and in shady moist woods and in the thickets

along water courses; from Houston to the Brazos & Colorado — Sept & Octob. — We find the stems of some of the specimens more scabrous than pubescent and also the leaves less velvety on the lower side and sometimes nearly smooth on the upper. — Involucral scales smooth, with ciliate margins, especially the outer ones. Achenia more or less hairy, sometimes hairy only in top, especially when ripe. Specimens collected in July on the Prairie ~~[illegible]~~ margin of woods are much more tomentose.

Disc flowers turning red as in Ast. sagittifolius

Aster spinosus Deutb. Clayey banks of the Brazos near San Felipe; self fructiferous

Aster diversifolius ? (№ 263) annual? agrees pretty well but disc flowers twice as much as ray flowers (17 and 35) pappus less copious and coarser — pappus of ray hilly as long as of disc — tips of inner involucral scales colour bluish

Of the specimens, from earth locality are similar, but more slender ray 13, disc flowers 24 — involucral leaves scarcely with ~~yellow~~ tips.

250 Chaetopappa asteroides DC dry prairies west of the Brazos, April to July.

257 Bellis integrifolia Mich. slightly sandy soil, prairies west of the Brazos with sedum spatiflorum and Sibrankia angustata; April & May. — The heads are only half as large as in the common form of this plant and the rays fewer — but we can not discover any other difference.

252 Solidago angustifolia Ell Wet Prairies west of the Brazos, Octob 11 — Not at all in brackish swamps, and not even always on wet soil; for

we have specimens collected on high and dry Prairies between Houston & the Brazos beginning to flower in June. Inflorescence somewhat scabrous; leaves scabrous on the margin; scales of the involucre ~~very~~ acutish the exterior ~~above in the specimens from the Brazos, but with acutish in the specimens from the dry~~ mucronulate, the inter on with obtuse grounds west of Houston + achenia pubescent

+ ~~Ray~~ flowers in the Brazos specimens 5–8 disc flowers 7–13 in the Houston specimen ray fl. 6–10 disc fl. 10–13

253. Isopappus divaricatus T & Gr. Light sandy soil in prairies and open woods, west of the Brazos; Aug. & Sept.

254. Isopappus thurkeriianus T & Gr. In patches on sandy prairies and on sandstone rocks on the Colorado. Sept. — Our specimens are from 6 inches to 2 feet high, mostly branching from the base, but also simple

255. Grindelia inulaeifolia W. in patches in the Prairies west of San Felipe in July & August. — Grows 5 to 6 feet high, branching only above.

256 Calyptocarpus vaudida T & Gr. Margins of woods, & open woods west of the Brazos April & May.

Pterocaulon leptostachyum n. sp.: caule herbaceo ramoso, foliis inferioribus lanceolatis superiorib. linearibus — omnibus undulato denticulatis supra glabris, subtus albo tomentosis, ~~capitulis~~ fasciculatis; capitulorum sessilibus in spicam elongatam interruptam congestis; involucri squamis ~~exterioribus~~ lanceolatis brevibus dorso tomentosis, interioribus linearibus elongatis, apice glabris ~~apice~~ glabris; ~~apice~~ acuminato-setaceis

Open Pine woods near Houston, fl. Septemb. — ~~Apparently very~~ Easily distinguished from the only other N. American species P. pycnostachyum by the ~~branch~~ branching stem, linear leaves, interrupted spike etc. — but perhaps to near P. interruptum DC from Brazil; but apparently distinguished by the narrow undulate-denticulate leaves, which in P. interrupt.

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are described as oblong-lanceolate, irregularly dentate. — ~~The stems~~ Our specimens are from 2 ft to 3 feet high, more or less branching, slender, interrupted spikes 4 to 7 inches long, ~~composed of~~ glomerules ~~of~~ composing the spike formed below mostly sessile, but in our specimens one or two instances we found the lowest ones pedicellate, by 3 to 5 or 8 heads above the heads are sometimes single; pistillate flowers numerous in many series, perfect ones 2 to 4 in the centre

257. Silphium scabrum Ell. In shady woods west of the Brazos, in Texas May to July. — ~~Achenia~~ ~~very broadly winged somewhat pubescent~~ obovate or oblanceolate obtuse chaffy scales adhering to the base of the broadly winged, somewhat pubescent achenia.

258. Helianthus Lindheimeri Torr & Gr in Sandy open Post Oak woods west of the Brazos, May to August. — From a large perennial rather fleshy root rise many stems 2 to 5 feet high, branching above. lowest leaves rhombic ovate or ovate lanceolate acute, tapering into a petiole of nearly their own length, or shorter a little higher up the bases of the petioles sometimes widened, and clasping, as in Silphium perfoliatum, and the upper leaves are entirely ~~sessile~~ perfoliate, without any show of petioles. — Exterior involucre in our specimens 4 parted, ~~sharply~~ forrangled; scales rhombic oval, acute on the margin and the inner side ciliate-pubescent. Rays ~~as well as disc~~ flowers with a hairy tube (not only involucre); tube of disc flowers likewise hairy.

259 Helianthus Cutcularis Dougl. In low shady woods, and on wet prairies between the Brazos & Colorado. ~~On the~~ July to Sept. — In the prairies it is lower but in the bottom woods it attains the height of 10 and 12 feet. the lower leaves ~~have petioles of~~ are oft 6-9 inches long and 5 to 8 inch broad and have petioles of 6-8 inches length; flowers 2½ to 3½ inches diameter; achenia oval, thicker

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the usually in their genus.

209. Helianthus asperrimus n. sp. hispido, perennis, x infra glabrescens supra hispido

caule erecto simplici, ~~asperrimo~~, foliis alternis lanceolatis ~~pubescentibus~~ integris (v. obtuse dentulatis) penninerviis, rigidis, supra ~~fere~~ sublusque pilosoasperrimis, capitulis singulis terminalibus, pluribus in axillis foliorum superiorum breviter pedunculatis; involucri squamis lanceolato linearibus accumbentibus apice squamosis, ~~18 - 21~~ floribus dorsi pubescentibus, acheniis glabris, ~~pappo~~ squamis pappi ~~2 lineari~~ 2, elongato lanceolato - ~~subulatis~~ fimbriatis.

Covering large patches of the prairies between Bayous & Colorado. October.

— Near H. gigantens Lin but easily distinguished by its great roughness, low growth, simple stem etc. +? The simple stems rise from a thickened rhizome 2 to 3 or 3½ feet high, in the flowering plant naked below

+ also near H. pinetorum Torr. but ~~doubtly~~ apparently distinguished by the ~~squamose~~ (more or less) squamose involucre, by the narrower lanceolate, not ovate-oblong leaves, by the ~~very~~ scabrous covering of the ~~leaves~~ feather veined not triplinerved leaves and by the glabrous achenia. — Perhaps too near Hel. Mexicanus Lin but distinguished by its low growth simple stem ~~[illegible]~~ more caudate leaves broader and less squamose scales of involucre

with larger narrowed leaves in the middle and with smaller and fewer ones towards the top; leaves contracted at base but not petioled, in all one opposite, undupliate, and curved backwards, mostly entire, sometimes slightly denticulate, very rough but more so above the below. Heads from the two 5; the terminal one (2-4 inches) long pedunculate, the ~~lower~~ lateral ones with short (about ½ to 1 inch) peduncles. Heads about 2 ~~to~~ 2½ inches diameter. Involucral scales ~~lanceolate~~ lanceolate, frequently with heterocously accumulate and sprendly tip, chaff of the receptacle present (but not always) at top abruptly accumulate with two very small lateral teeth. Rays 18 to 21; disc flowers slightly hairy externally especially near the throat; proper tube short, achenia (cuneiform) glabrous ~~smooth~~ with 2 lanceolate subulate chaffy fimbriate scales of 1 this own length.

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Mr Asa Gray's

260 Helianthus Maximilianii Shad. Prairies,
margins of woods, along fences and in
deserted fields, in patches togeth, from
Houston to the Colorado R. in
Octob & November, the latest flowering
species in Texas. × Our specimens
from Houston have the involucre & slightly scabrous
~~involucre~~ There from the Brazos are
conspicuously scabrous. Chaff mostly entire
abruptly acuminate and at the apex pubescent
rarely with two very small lateral teeth.
The lowest leaves are slightly petioled
but at each end long acuminate &
very slightly repandly denticulate; equally scabrous
on both sides

× grows 4 to 7 feet high, much branched

262. Helianthus grosse-serratus Mart & S. serratus
Thanks of involucre and margin of
wood. ~~Aug to Octob~~ end of the Aug
Aug to Octob. — This appears to be the
original form of this very variable species
with oblique base
leaves coarsely serrate, with divaricate
teeth, tomentose on the lower side
silky. — The involucral scales, are
very soft
chaff mostly entire quite (but not abruptly acuminate)
The lecticia of the disc flowers somewhat smooth, and many nerved,
very frequently with a middle nerve. Near St Louis we have several other forms
with opposite, or alternate leaves,
with tomentose below or only slightly
canescent with strongly ciliate scales
of the involucre, but all have leaves
with a very acute base and slightly
and appressed serratures and narrower
mostly only 3 nerved involucral scales.

stem very smooth & glaucous

or nearly smooth

263. Helianthus grosse serratus Mart. β scabrior?
This variety was collected with H. Maximilianii
and the specimens of both were mixed
They are readily distinguished however
by the all the leaves being petioled
and more canescent the scabrous on
the lower surface, and appressed serrate
(or nearly entire); they are very acute
at base, and the stems, though
somewhat glaucous, are ~~rough~~ scabrous
slightly thought.

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G. Lindh. Collect 1844

the lower leaves, to which were found with this and H. Maximilianum evidently belong to this species; they are petioled, ~~[illegible]~~ alternate at base, serrate and rough on the lower surface.

Hedeoma Maximilianum, asperrimum, H. gigantea and grosse-serratum are very near each other; H. grosse-serratum is distinguished by the petioled leaves (which are only in one form roughly coarsely serrate!) and the ~~smooth~~ glabrous smooth or slightly scabrous stem; H. gigantea by the hirsute or pilose stem & leaves; H. Maximilianum and H. asperrimum by the sub-sessile leaves which are scabrous and equally green on both sides. — The genus Helianthus is one of the most difficult of all those found in Nauvoo as we can hardly rely on any one constant character; they are all more or less variable and there are intermediate forms which apparently connect the ~~[illegible]~~ most distinct species. —

264 Cosmidium filifolium Torr. & Gray. Prairies west of the Brazos. fl. May & June. — A perennial plant!

265 — Dysodia tagetoides Torr. & Gray. Prairies near springs on the declivities of the Sandstone on the Millcreek. August. — Dots of the leaves orange yellow.

266. Palafoxia Hookeriana Torr. & Gray. In sandy Postoak woods, near Industry, in patches, ~~[illegible]~~ fl. in August. — This as well as P. texana &c are annuals!

267 Actinella linearifolia Torr. & Gray. On the declivities of limestone hills near Industry. May & June. — Rays yellow, turning white, when fading.

268. Senecio ampullaceus Hook. annuus (? s. biennis?) glabrissimus s. floccosus, caule erecto fistuloso striato, superne ramoso, foliis inferioribus ovato spatulatis in petiolum decurrentibus integris s. ~~dentatis~~ superioribus basi subrotundatis, ovato lanceolatis, sinuatis

semiamplexicaulibus, quibus sub-
integris s. dentatis; cyma
paniculata corymbosa s. pastigiata
pedunculis demum sepissime immersis;
involucro squamis setaceis pauciis
calyculato; radiis 7-9; achenii
strigosi canescentibus.

α glabriusculus, foliis glabriusculis
angustioribus ~~minus dentatis~~ quam pastigiatis, integris
s. parce dentatis; v. involucro squamis
~~[illegible]~~ linearibus acuminatis, glabris. S. angustifolius Hook

CM 268

β. floccosus ~~foliis~~ foliis quam
junioribus floccosis, foliis latioribus
saepe grosse dentatis, cymis corymbosis
involucri squamis linearibus acutis s.
obtusiusculis apice barbatis. (N. 269)

In the Prairies, between Bayou Colorado
α. on wet places, β on ~~the dry~~ ~~[illegible]~~ loose sandy soil of the
deserted ant hills together with Anemone
mexicana. — ♃ — April. —
This we have no doubt is Hooker's
S. angustifolius, though it certainly
is an annual or biennial plant &
is numerous specimens collected with
roots prove. — We can not sufficiently
distinguish both forms, ~~though~~ the
variety grows in wet soil, is much
more slender with narrower leaves
~~sometimes it~~; on a few specimens
we can observe a remnant of
flocculeny; the variety from
dry places is a much stouter
plant with broader, thicker leaves
of a darker green color, but frequently
~~[illegible]~~ below, whole plant more
or less flocculent; — flowers above 50 or 60
in each head.

~~269~~ Linum [illegible]

270 Lygodesmia aphylla Hook. B. Texana Torrey
Prairies, Margins of woods, west of the
Brazos, June, July. — Root penetrating
deeply into the soil, forming elongated tubers.

glabrous

pleriique basi angustatis

superioribus e basi lata
cordata acuminatis

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271. Pycnanthemum grandiflorum Nutt.

Prairies near San Felipe, in groups, but not closely together. — Perennial! Root slender, bearing a few inches below the surface a globose or ovate tuber, similar to the root of Cynthia Dandelion &c. — × Scapes several from one root, 6 to 12 inches high, with or without a bract, the middle heads as large as in P. canolinianum &c.

× leaves rarely oblanceolate, sinuately dentate, commonly ruminate or pinnatifid; ~~pinna~~ lobes triangular or ungulate toothed, divaricate.

Exterior involucral scales shorter and broader than in P. canum; interior ones without the appendages of the other species.

(Otarin)

272 Asclepias Lindheimeri. Rhizomate perpendiculari, incrassato, caulem herbaceum singulum erectum simplex adscendentes pubescentes emittente foliis oppositis ovatis obtusis s. laceolatis acutis in petiolum brevem attenuatis utrinque pubentibus; pedunculis brevissimis ~~axillaribus~~ lateralibus; pedicellis gracilibus pubescentibus, corolla laciniis oblongis acutis, pedicello dimidio ~~superantibus~~ longioribus; corollis ad apicem sensim dilatatis 3 lobis; gynostegium plus quam duplo superantibus; processubus binis altero brevioribus exserto, incurvo altero vinculum erecto folliculis ovato lanceolatis accumbentibus pubentibus, carina arcuata; arcuatis mitibus armatis. —

In black clayey soil near Industry from June to August. — Stems one or generally several from a thick ~~tuber~~ tuberous perpendicular root, erect or mostly ascending, ~~about~~ 1 to 2 inches high; leaves mostly broadly oval and obtuse but in the specimens (the taller ones) lanceolate and acute; umbells nearly sessile, not in ~~the~~ axill

greenish

but on the side of the leaves, flowers large
(somewhat pubescent externally)
ly × pubescent one third of the length of the petals;
ately about 5 lines long, & Cor & corolla
of the same length and nearly three times
as long as the slightly stipitate ovary; corolla × widened forwards
× very narrow about the middle
the point, ~~the lobes not~~ and doubled,
but not tubulous; when expanded
they appear three lobed; middle lobe
crenulate, rounded lateral ones short
acutish; — ~~but the two~~ horns double,
the ~~inner~~ shorter one erect, included
the longer one exserted curved inwardly
and nearly horizontally; both horns together
with the inside of the corolla minutely
pubescent; — as far as included × cusps of the anthers ~~erect~~
membranaceous, ~~rounded~~ obtuse, erect.
~~Wanting~~ follicles
× The only other Asclepias with a bifurcated horn, known to us is A obtusifolia
both prongs are slightly
exserted there though the
inner one is ~~too~~ as in
our case shorter than
the other;
ovate lanceolate, longacuminate
pubescent, 8-angled angles
often somewhat tuberculated exterior
one with soft spines or a dentated
carina" (Lindl.). — We find
specimens with nearly ripe fruit
below and open flowers above
without intermediate half developed
green pods, so that the same plant
appears to flower at different
times during the season. —
Very ~~well~~ distinguished from any other
north american species but near
A Conjoinae Beath from Mexico
and in fact, ~~according~~ in the descript.
in DC. prodr. we can not find any
other difference but the shorter corolla
and the roundish ovate pale cinnescent follicles
(with them are two horns is not
said, nor with the corolla are regularly
3 lobed. —

Asclepias glaberrima Sullivant n. sp. St Louis; mihi
Asclepiadeae

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cm
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7 Lindheimer Collect. 1844

273. Gonolobus? ~~and papiflorus~~ cynanchoides n. sp.

caulibus plumbus basi ramosis adscendentibus s. prostratis hirsuto-pubescentibus, foliis ovatis cordatis acutiusculis breviter petiolatis, utrinque pubescentibus; pedunculis brevissimis floribus geminis pedicellis basi bractea subulata suffultis, petiolo plerumque longioribus calycis hirsuti lobis ovatis acutis corollae laciniis ovatis obtusis extrorsum pubescentibus introrsum glabris (ex viridi purpureis); corona staminea cyathiformi gynostegii basin cingente 5 loba, lobis (crassiusculis, rotundatis), margine tricuspidatis supra processu lineari scapiformi carnato ornatis; folliculis ovatis utrinque attenuatis conaceis ~~spinosis~~ muricatis pubescentibus, seminibus nufis orbiculatis marginatis comosis.

Found along post oak woods near Industry on sandy soil. Fl. April to June. — This is apparently no Gonolobus and appears to be on one side nearly related with Lachnostoma prostratum Dne. on the other still nearer with Chthamalia biflora Dne. But the very peculiar structure of the corona staminea might characterize it as a peculiar genus if it should be settled that any diversity of form of this organ among the works constitute a generic difference in this family; — but the Decaisne himself the monographer of this family in de Candolle Prodromus appears to have no settled views, or he could not have included Gonolobus hirsutus Mx and G. maimpbyllus Mx with their campanulate corona with 10 longitudinal and 5 shorter broader teeth ~~it~~ ~~in the same genus~~ with ~~gonolobus laevis~~ Mx in his genus Gonolobus corona staminea — annuliformis lobis integris". — We are therefore not only of the opinion that ~~this~~ ~~not only~~ our plant ought to be referred also to Gonolobus but have little doubt that some species at least of the genus Chthamalia, ~~have~~ to (probably the North American one)

must be restored to Gaulobus. —

Our plant ~~plant~~ ~~and~~ ~~pos~~ a perennial somewhat tuberous root mostly several weak stems, 6 to 15 inches high branching at base, ascending or ~~apparently~~ prostrate; ~~the~~ leaves opposite cordate, with an open sinus 1 to 2 inches long — i.e. ½ to 1½ inches broad on very short petioles 2 to 4 lines long; upper most leaves smaller nearly sessile ovate lanceolate, ~~at base~~ often ~~mostly~~ truncate than cordate at base. ~~The flowers~~ flowering ~~mostly~~ towards the top of the stem — branches ~~and the~~ with peduncles longer than the petioles; only where they occur lower down the stem the peduncles are occasionally shorter than the pedicells. There is a common peduncle sometimes a line ~~long~~ but mostly only half that length, always bearing two pedicells with two subulate bracts at base. The greenish purple corolla is very slightly hairy ~~outside~~ & perfectly smooth inside. The corona is ~~cup~~ shaped five cleft: the lobes (fleshy, rounded) with a thin membranous margin and in the middle with an incurved process which ~~at base~~ at base reminds us of an Asclepias, it is connected with the middle ~~part~~ of this process newly the anthers and is free and incurved at the ~~base~~ base point where it is excavated somewhat like a spoon on its upper surface. The ~~numbers~~ anthers of the are triangular, acute and cover part of the very ~~blackish~~ so angular stigma.

The extremely small horizontal pollinia masses are obly ~~small~~ ovoid — hardly attenuated at their exterior (attached) end

The plant appears to be very near Chthamalia biflora D.C. from Red River and only distinguished for it by the petioles being shorter ~~long~~ than the pedicells, by the smooth shining surface of the corolla and by the peculiar corona; it is most probably a congener of it.

N.B. If the corona is of such importance Gaulobus macrophylla & versatilis ~~can~~ not be congeners of G. laevis. For G. laevis I take a plant with yellowish green flowers and ribbed follicles, ~~with~~ ~~smooth~~ glaucous flowers a very

abt 2 lines in (diameter)

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small indistinctly 5 lobed staminal corona and 5 fleshy projections of the centre of the anthers, under the very narrow membranous cusp or entire margin. — ~~This is probably~~ the I have specimens of this for Arkansas, Louisiana & Texas; mostly with ante or very shortly acuminate, but also with attenuate acuminate ~~leaves~~ leaves, and sometimes even with something like pandurifom leaves. — It is probably the same as Nuttall's G. viridiflorus (G. Nuttallii Dne). What is G. tuberosus X Br?

I don't like Decaisne entirely why Asenteres so far for Asclepias? why Acanthera paniculata (for Vespasii to Atkins & Texas) an Asenteres? why Otaria a subgenus of Asclepias? * being true Asclepias have biacuminate * (all 1848)
cuculli and not a few have the longer than the gynostegium! —

274 Lisianthus Russelianus wet prairies with clayey soil; west of the Brazos. July & Aug

275 Phlox Drummondii in sandy soil principally near watercourses west of the Brazos April to July. — Amongst the Texian plants we find a single specimen of another annual Phlox, collected on hard prairie soil. Leaves oblanceolate, linear, smooth, at base ciliate; stem nearly smooth; inflorescence pubescent; lobes of calyx ~~ciliate~~ scaberous or aristate nearly twice as long as the tube; corolla pubescent externally; ~~lobes~~ with acute or with mucronate lobes, half as large as those of Ph. Drummondii and much paler and more violet. Perhaps only a short dwarf variety of Ph. Drummondii?

276. Convolvulus Pickeringii Torr. dry sandy prairies west of the Brazos. April May to July; [entirely similar to a specimen which Mr Curtis gave me under that name.] many prostrate stems from a very large thick ligneous root.

Convolvulus ~~pedunculatus~~ lobatus n. sp. radice perenni caulibus plumbis prostratis, pubescentibus, foliis hastato-lobatis, lobis ~~[illegible]~~ lobatis, lobo medio elongato simulque dentato floribus singulis pedunculis medio bibracteolatis petiolo longioribus; sepalis ovatis obtusis pubescentibus margine dense ciliatis, corolla infundibuliformi alba, glabra, ad nervos extus pilosa ~~[illegible]~~ stigmate radiato elevato capsula glabra, semenibus nigris glabris, rugosis. —

On Sandstone rocks near Industry west of the Rocky M. April to June. — Stems prostrate 3 or 4 feet long, slender with small rather 6 or 7 lines long and of the same diameter.

277 Cuscuta cuspidata n. sp. B. Cottonii — of the Colorado river, August. — For the description compare Mexico 125.

Cuscuta neglecta Cav. calyptrata
vide Cuscutineae

278 Lithospermum mandanense Spring.
Prairies near Industry west of the Rocky, April & May. — One or several erect stems from a black thick fusiform root, simple below branchy above; whole plant strigosely canescent; leaves above with the lowest lower oblanceolate or even obovate obtuse upper one linear lanceolate & linear acutish; flowers in a very loose leafy cyme calyx longer than tubular corolla. tubes of corolla hairy outside; nutlets white shining acutish with a sharp ridge on the inner side and impressed dots on the inner face: — This plant we can not distinguish from specimens received collected on the upper Missouri; both are not decumbent. — We have received a few specimens of a similar plant

* or with dark purple

roundish, erect? crenulate

8. Lindheimer Collect. 1844

collected in Davis near Houston, which has a much more branched stem and smaller oblong nuts with only two rows of impressed dots along the carina; flowers not seen. Perhaps a variety of our plant.

279. ~~Eutoca~~ ~~omnat~~ Phacelia erectiflora n. sp.

This with the following species belongs to a subgenus of Phacelia of which we see no mention in our books; we call it: Pleiospermon, as it is distinguished from Phacelia proper by having 12 ovules in the bicelled ovary, and usually twelve angular, scobiculate seeds in the hairy capsule. Tube of the corolla also with 5 pairs of wing like ~~fracta~~ scales, which form 5 nectariferous grooves corresponding with the middle of the lobes of the corolla. * Annuals ~~[illegible]~~ pilose pubescent radice annua

Six scales off of unequal size in the same flower & filaments hairy below the middle

Phacelia erectiflora

caulem singulum erectum s. plures ad radicem emittente, foliis ~~primordialibus~~ inferioribus integris, (obovatis petiolatis) ~~inferioribus~~ primordialibus integris, ceteris inaequaliter dentatis; ~~omnibus~~ omnibus similibus ~~[illegible]~~ pinnatifidis; racemis simplicibus ~~[illegible]~~ Cuticulatis hirsutis ~~capsulis que~~ erectis calyce subaequantibus, calycibus pilosis — cum centibus, laciniis erectis oblongo-linearibus obtusis ~~[illegible]~~; corollae margine denticulato-erosa (vel pilosiusculis)

In sandy soil on the banks of the Brazos near San Felipe. March. A graceful looking plant in varying size — the smaller specimens single, ~~and most~~ the larger ones several dividing at base, but not branching; — from 4 to 7 inches high; ~~spike~~ racemes dense, elongated after flowering pedicells as well as calyx segments erect giving the specimens a stiff and compact appearance. Corolla opaque, pale blue, 8 to 12 lines = diameter

280 Phacelia petaliflora n. sp. Pubescens radice annua

caules plures ~~[illegible]~~ petalos s. prostratos adscendentes, subramosos emittentes; foliis obovatis, obtusis, omnibus omnibus similibus ~~inferioribus~~ inferioribus integris, superioribus petiolatis, superioribus sessilibus racemis terminalibus simplicibus; ~~pluribus~~ pedunculis ~~capsulis que~~ petaliis s. subreconvoluta ~~[illegible]~~ calyce ~~[illegible]~~ longioribus ~~[illegible]~~

calycibus pilosis, laciniis petalis ovato oblongis, obtusis; corolla extus pilosiuscula, margine denticulata — unique.

In woods near Sta Fe, Mexico, April. — A larger plant than the foregoing, from 6 to 12 inches long, partly prostrate, stalks; plant more green with fewer and shorter hairs; leaves less deeply incised, with the teeth always ovate obtuse; racemes less with much longer pedicells, smaller, not 6 lines diameter; corolla deep blue, with a yellow ~~interior~~ at base.

~~acuminata, stellato-tomentosa~~ 281 Solanum miamense L. ? foliis basi inæqualibus s. subcordatis, angulato 5–7 lobis, lobis ~~repando dentatis~~ utrinque stellato-tomentosis, nervis supra subtusque aculeatis; pedunculis lateralibus oppositifoliis, fructiferis reflexis; calycibus armatis s. inermibus, tomentosis laciniis subulatis; corolla extus stellato tomentosa.

obtusis

Roads, &c in prairies below the Bayou Colorado. — ~~Often~~ from the size of the specimens, which are stout branches, we judge that this must be a large plant, several feet high; whether perennial or annual, we have no means to ascertain; — It is very near S. carolinense but distinguished by the much ~~more~~ denser shield covering the cymose inflorescence. The rather larger bluish flowers and the truncate calyx tube with abruptly subulate teeth. fruit not seen. — We have a specimen of a similar plant collected in the same region, with larger flowers and triangular acute lobes of the leaves which we take to be a variety of our species

282 Pentstemon flammeus glabriuscul,
glaucus, foliis infimis spatulatis in
petiolum attenuatis, superiorib. ovatis basi lata
sessilibus amplexicaulibus
bracteisque perfoliatis; scapis pedunculis ~~pedunculis~~ in racemo laxo
axillis ~~flores superiores~~ & bractearum
singulis bibracteolatis unifloris
s. biflóris pedúncúlo calyce breviore;
corolla tubulosa cum staminibus ~~a~~ filamento
sterili incluso glabrissima; sepalis angustatis.

Dry sandy soil in open woods
west of the Brazos, May & June.
— A remarkable species on account
of its splendid ~~yellowish scarlet flowers~~
reddish yellow flowers with a scarlet limb,
which are which form a pleasant
contrast with the bluish glaucous leaves.
~~The corolla is about 14-16 lines long, and~~
~~the limb 7 or 8 lines wide.~~ — It is also
the only Pentstemon known to us
with a smooth sterile filament.
Stems 18 to 25 inches high, lower leaves
2 to 3 inches long, 1 inch or more broad
upwards gradually smaller, more
lax with few flowered 8-10 flowered ~~lower peduncles~~ one
common peduncles in the axills of the leaves
with two bracteoles, the lower and ~~higher~~ upper
ones with only a single flower and sep
rudimentary buds in the axills of the bracteoles,
the middle ones with one lateral flower
on a shorter peduncle; flowers horizontal
corolla 14-16 lines long limb 7-8 lines wide

283 Gratiola ~~canadensis~~ sphenosepala Ell
On ponds and rivulets February to
April, but also through the whole summer.
The specimens collected later in the
season are usually smaller, more erect
with narrower leaves.

284 Castilleja indivisa n. sp. Biennis caule
erecto (piloso, ~~ramoso~~) foliis ~~simplicibus~~ canaliculato-linearibus integris, ~~linear~~
(raro bine trifidis) nervosis e basi
lata semi amplexicaulibus angustatis,
pilosis pallescentibus; ~~floribus~~ verano
demum elongato; bracteis inferioribus indivisis
e basi lata ovata semiamplexicaulibus angustatis, hirsutis

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superioribus versus apicem dilatatis, obtusis
coloratis; floribus sessilibus, calyce
bifido, ~~obtuso corolla~~ laciniis ovatis;
corolla dorso glanduloso pubescente
vix aequante; stigmate capitato
subbilobo stylo dentato tri quatuve excedente.

Grassies from Houston to the Colorado
& for the end of March to June.
— Very near the northern Castilleja
coccinea with which it agrees in
general habit. It is much more
leafy especially toward the base of
the stem. Distinguished from it by
the usually entire leaves and bracts
which are ~~amplexicaule~~ semi half clasping
with a broad base, not sessile with
a narrowed one, by the closely
sessile not shortly pedicelled flowers
and the thick stigma, which is
about twice as large as in the
north plant. We have not seen
this one from Texas.—

286. Stachyastrum scutellarioides. n. sp.

Stachyastrum n. gen. calyx campanulatus, bilabiatus ~~bilabiatus~~ sub septem nervis, reticulatus, bilabiatus labio superiore ~~plano~~ erecto, breviter trilobo demum saepe repetito, inferiore angustiore bifido; corolla tubo longo exserto, intus nudo, in faucem dilatato, limbi bilabiati labio superiore brevissime plano integro, inferioris ~~trilobo~~ erecto patentis, trilobi, lobo medio emarginato. Stamina 4. inferiora longiora; filamenta superiora ad medium corollae adnata, ~~apice~~ ~~ovaria~~ medio pilosa; antherae approximatae, (Didynamae) basilis divaricatis ad rimam loculorum brevissime ciliatae; stylus glaber, apice bifidus lobis aequalibus. achenia subglobosa laevia.

Herba annua texana Stachydis habitu, unde nomen ~~glabra~~ foliis sessilibus argute dentatis, glabris ~~inflorescentia pubescente~~ floribus oppositis, inspersis, ~~laxum~~ ..... pubescentia dispositis.

St. scutellarioides n. sp. In heavy black soil on the prairies near Cat spring west of the Brazos. fl. — April & May.

x. demum circumvolutis ~~calycem sem~~

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J. Lindheimer Collect. 1846

Annual
Stem about 1 foot high, erect, acutely quadrangular
branching above, glabrous; lowest leaves
opposite oblique, alternate into the petiole
slightly serrate upper ones ovate-lanceolate half clasping
below with a narrow above with a broad base
acute acutely & unequally serrate two inches
and more long, about 6 lines wide
inflorescence pubescent. Bracts ovate acuminate, spike mouth
short pedicells forming a spike; calyx about 1½ lines long
2-lipped, upper lip with 3 short, roundish ~~abruptly acuminate~~ ~~lobes~~ lower ~~with 2 lobes~~ ~~flowers are thrown back~~, lower lip
with 2 lanceolate acute lobes ~~which~~ after flowering the ~~lip~~ upper lip is
thrown back at lip and the lower incurved
so as partly to close the interior;
approaching the true Scutellarineae;
Corolla about 5 lines long ~~upper lobe~~
apparently flesh colour with a yellow
throat, upper lip (entire erect retuse
much shorter than the lower lip,
which is three lobed lobes horizontal, middle one
broadest emarginate or slightly 2 lobed
lateral ones entire; corolla mouth inside
bent stamens hairy at the middle to sheath
place the upper shorter ones are adhering
to the corolla; anthers purplish, smooth
but with short cilia, or teeth at the
statures. — This genus is apparently
~~but~~ intermediate between Scutellarineae
and Melissineae but nearer the
first on account of the shape of the
calyx in flower & fruit.

287 Brazoria annua n. sp.

Brazoria n. gen. calyx campanulatus
tubo nervosus, ~~vix~~ articulatus, bilabiatus
labio superiore ~~truncato~~ brevissime 3 ~~dentato~~ lobis truncatis
inferiore breviter bilobo ~~lobis~~ denuo inaequaliter ~~dentatis~~ lobis minutissime ~~denticulatis~~
labis omnibus denticulatis; calyx fructiferus claudente
tubus ~~longe~~ exsertus; corolla
intus ~~ad~~ prope basin
pilosa annulatus, ~~sub fauce infra palatum~~
impressione inferiore sub fauce
concava impressa intus palatum referente
labio bilobato indique crenulato labium
superius (bilobum galeatum), inferius,

horizontale trilobum lobis bifidis. Stamina 4 inferiora longiora, ~~filamentis~~ sub galea inclusa; filamenta supra medium corollae adnata ubi pilosa incrassata; antherae didymae ciliatae; stylus glaber, apice bifidus, lobis brevibus acutis; achenia ~~ovata~~ acute trigonata, ~~inter~~ adpresse pubescentia.

aequalibus

Herba annua texana ramosa ~~pubescens~~ foliis glabriusculis, sessilibus ovato dentato-lobatis, floribus oppositis in spicis densis (pubescentibus) contractis. Nomen a logo natali ad flumina Brazos

Brazoria annua n. sp. — On deserted anthills with Argemone mexicana Jatropha stimulosa, Helianthus annuus, ~~and~~ Phlox Drummondii etc. — ~~Annual~~ Fl. May & June. — Annual, stems several branching from the base or simple pubescent; leaves nearly smooth, obovate, obtuse, attenuate into a petiole above sessile oblong-lanceolate acutish, ~~opposite~~ sometimes clasping all irregularly dentato-lobate; bracts ovate acute nearly as long as the very shortly pedicelled hairy calyx calyx nearly 2 lines long and as wide closed in fruit, with the upper lip recurved; corolla pale rose colour with yellow dots about 4 lines long; tube below the lower lip thrust inwardly so as to form a prominent palate inside; upper lip with two acute lobes, lower one with 3 obtuse ones which are again deeply emarginate or 2 fold; stamens especially the lower (longer) ones remarkably thick especially in proportion to the small anthers; ciliate connected with the corolla for more than half the length and hairy at their ~~base~~ proper base near the base of the corolla and again above, where the detach the calyx from the tube. — The genus is

acute bifidis

x 2-3 inches long 6-8 lines wide

x spike compact elongated

x ad Sonchellam proxima accedens.

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very near Trichilocia, but distinguished by the shape of the calyx, the lips of which are lobed and which is entirely persistent, and by the corolla with its singular palate which resembles much the palate of ~~Utricularia~~ some personatae.

288.5 Phedeoma citriodora ~~sp.~~ suffruticosum, ramosissimum, pilis crispulis pubenula; foliis oblongo-lanceolatis, breviter petiolatis, integris s. versus apicem dentículatis; ~~s.~~ cymulis axillaris foliorum ~~dist~~ 3 floris; pedunculis tubuloso incurvo, ~~bilabiato~~ pilis albis; calyce superioribus dentibus 3 lanceolatis, inferioribus 2 subulatis longioribus; corollae tubo longe exserto, limbi labio superiori emarginato, inferiore majore 3 lobato lobo medio dilatato bifido; nucamentis ~~pilis~~ limen lorum superiorum brevibus; achaeniis oblongis. —

On Sandstone rocks near Industry July: — The whole plant has a strong taste and smell of lemon peel, — shrub stout, numerous 8–12 inches high, somewhat spreading much branching; leaves small 4–6 lines long, 1 line wide, pubescent or with a little cobwebby, ~~fibre~~ strongly veined and dotted; ~~flowers~~ calyx ~~2 lips~~ 3 lobed very unequal; but all the lobes lanceolate; corolla long exserted about 6 lines long.

288 Physostegia dilatata ~~n. sp.~~ erecta, glaberrima, inflorescentia ~~minutissime pubescente~~ tenuissime pubescente; foliis infimis oblongo-lanceolatis obtusis integris s. repando dentículatis in petiolum dilatatum decurrentibus, caulinis e basi dilatata cordata sessili sensim angustatis, ~~a basi serratis~~ inferioribus dentatis serratis, superioribus obtusis acute serratis, acutis summis integris; spicis elongatis, remoti floris, ~~elongatis~~ ex floribus subsessilibus, calycis dentibus triangularibus subaequalibus. —

Wet prairies west of San Felipe, in patches together H. in April.

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near Physostegia ~~dilatata~~ virginiana
but spike more slender flowers
rather smaller (corolla ¾ – 10 lines long)
but principally distinguished by the
leaves, which are, especially the
upper ones broadest at base, ~~&c~~
cordate and serrate from the base
which distinguishes them from any other
species of Physostegia. The ~~plants~~ stems
are 1½ to 2 feet high, and much more
leafy at base, than Ph. virg. usually
is probably on account of its early time of
flowering.

289. Verbena multipartita n. sp. hirsuta
caule prostrato radicante, ramis floriferis
erecto adscendentibus, foliis tripartito multifidis,
laciniis linearibus acutis;
× corymbosis, demum elongatis spicis terminalibus densis × bracteis
demum squarrosis, et calycibus ~~&c~~ aequalibus extus hispidis
dentibus calycis subaequalibus,
corollae tubo intus retrorse-hispido,
laciniis emarginatis in Prairies
On black heavy soil near Cat Spring
west of the Brazos common in ~~&c~~
on roadsides &c. – fl – March.
Near V. dubia but distinguished by the
~~finely~~ much divided leaves, ~~the hairiness~~
~~the small~~ much denser spike, smaller flowers
calyx whose teeth are not so unequal.
Altogether a very distinct species

near prostrate rooting stem, the hairiness (which are however larger than any other N. A. species)

~~Syn~~ N.B. No. 160 Diclipteria brachiata distinguished
from the generic character by having only two
seeds in the indehiscent 2 celled capsule.
When the capsule bursts the two valves separate
from the top then the half dissepiments and
~~both~~ sides of each valve separate from
~~the~~ its middle part from below
adhering to the top in this way the
capsule separates in 8 pieces.
seeds tuberculate

291 Justicia pedunculosa Vahl in
~~Cow~~ Cummings Creek of the Colorado
On rocky soil – August vide below
to which genus of Nees does this & J. humilis belong?

10. Lindheimer Collect. 1844

both appear to be congeners. Gendarussa Nees? but 4 stam. Beloperone?
Calyx indistinctly 2 lipped upper lip 3-, under lip 2 parted, segments nearly equal; ~~upper lip of~~ tube of corolla (inside woolly) ~~on the lower part~~ below the lower lip; upper lip bilobed, reflexed, lower lip deeply 3 lobed lateral lobes horizontally divaricate calls of the authors, distinct, one above the other; stigma acute, simple

(Gnoppyrum T & Mey.)

NB. No. 157 is congener of Ruellii strepens, Dizygandra Meisn
capsula pubescente, 10-12 sperma well distinguished ~~by the pubescent, not tight calyx~~ by the reflexed ~~and the pubescent~~ not smooth capsule, also more seeds (8-12). — Dizygandra appears authors basi conspicuus
to be distinct from Ruellia or Calophanes (Dizyg. strep. auth. basi mutic.)
(the N. American Ruellias) by the bifid stigma
& the large number of ovules
ours has a stigma dilatatum & denticulo
auctum (like true Ruellias) — does it
not connect again Ruellia Dizygandra and
Calophanes?

Stamina connata per pairs = 4051 = 4058 - 4060

Dizyg. strep. filam. basi hirsuta per pairs connata
D. nudiflora, fil. basi glabra per pairs connata

I come to the conclusion that the genera of Ruellieae are by far too much split nearly every one of our species must form a distinct genus if we follow the plan of Nees. Calophanes, separated from Ruellia comprises most of the north american genera; Ruellia strepens has been separated as Dizygandra Meisn; our Ruellia nudiflora No. 157 is near this and perhaps ought to be referred to it but it has not a bifid stigma but a ~~bifurcate~~ subulate simple one-sided stigma with a smaller tooth at base like the true Ruellia; the capsule contains 8 to 12 seeds.

0 1 2 3 4 5 6 7 8 9 10
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~~If we can not unite it with Dizy~~
the filaments are similar to those
of Dizygandra connected by pairs at
base. — If we can not refer it to
genus on account of its divergency
the stigma

But only at base

* the ~~stamens~~ authors are erroneous at base — the stigma

---

158 Calophanes rilicosus if we adopt Don's new
genera; but here we get into great
difficulties, and have to make several
new genera! Dizygandra has already
been separated by Meissner and our
No 157 ought then to constitute a third
genus: as my diagnosis (sent last year)
is incomplete I send a better one here

157 Ruellia (Codon) Panicularia Calyx
quinquefidus, subæqualis corolla tubo
cylindrico, infundibuliformi, limbi
subæqualiter quinquefidi lobis obtusis
planis patentibus; stamina 4 corollæ
faucei inserta, didynama subinclusa
filamenta ima basi connata;
antheræ biloculares, loculis linearibus
parallelis, basi cuspidatis; germen
bilocular, gemmulis plurimis
stylus simplex stigma simplex, subulatum
unilaterale, basi dentifero antheræ
capsula ~~subsessilis~~ ~~subcompressa~~ oblongo-lanceolata, 2 locularis
8–12 sperma; semina orbiculata
compressa, retinaculis subtersa

subsessilis

Panicularia nudiflora; distinguished
from Dizygandra by the entire stigma
from Calophanes by the larger number
of seeds. — Easily distinguished from all
by the paniculate flowers, and the pubescent
capsule, from R. strepens also by the smooth
(not hairy) filaments with are not so
much connected at base.

and our epithets authors

290 - Diplacanthus microanthus n. sp.

Mecophanes n. gen. subgen. calyx 5 partitus, subaequalis; corolla hypogyna tubulosa, limbo quinquefido subaequali (erecto?); stamina 4 corollae tubo inserta, ~~[illegible]~~ inclusa didynama, filamentis per paria basi in ligulam connata; antherae biloculares loculis parallelis mutticis; Ovarium biloculare loculis 4 ovulatis; stylus simplex; stigma subulatum basi dente auctum (s. inaequaliter bifidum); capsula bilocularis 8 sperma loculicide bivalvis, valvis medio septiferis, limbo orbiculato compressa, retinaculis unciniatis sublensa.

Herba ~~[illegible]~~ mississippiensis et texana, erecta, subsimplex ~~[illegible]~~ foliis oppositis; ~~[illegible]~~ glabra ~~minutissime~~ ~~[illegible]~~ axillaribus, paucifloris, corollis minutis albidis, ~~[illegible]~~ fugacibus.

Diplacanthus microanthus shrub two ~~[illegible]~~ feet high between the Arkansas & Colorado (Also in similar situations St Louis, Mo. (Engl.) and Alabama (Buckley) J. F. — Stem erect 15 to 30 inches high, smooth; leaves ovate lanceolate attenuate into a short petiole smooth, finely ciliate, 4-5 inches long, 1½ to 2 inches wide; ~~flowers [illegible]~~ ~~[illegible]~~ ~~short pedicels~~ ~~[illegible]~~ abs 3 flowered ~~in the~~ axils ~~of the leaves~~ ~~[illegible]~~ ~~3 flowered~~ ~~[illegible]~~ or more flowered cymes subsessile or pedunculated — the axils of the leaves; flowers pedicelled; calyx segments hairy, subulate nearly equal as long or longer than the tubular corolla; corolla 4 to 4½ lines long, those that I could examine have an erect limb which is nearly equally 5 toothed, teeth rounded; stamens included, filaments in the flower which I examined always ~~twisted~~ bent into a knee so that ~~the lower one~~ ~~do not~~ the anthers all appear nearly on the same level; style hairy; stigma subulate ~~[illegible]~~ bent glandular only on the upper surface with a stigmatiferous tooth or small division. Capsule ~~[illegible]~~ ovoid unguiculate ~~[illegible]~~, smooth, about 7 lines long.

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with 8 rudiments fertile seeds. — ~~Near Cryptanthus~~

Here I add again a little description of another singular Acanthacea, already described last year. It is near Justicieae on account of the unequal Corolla but it has four anthers and all four ~~with~~ complete with 2 cells; still Mr Lindheimer observes that sometimes 2 are wanting; — probably belongs to the first section of Justicieae Endl pag 793 and bears on account of its minute corolla about the same relation to them as ... to Ruellieae; near Cryptophragmium

Calyx 5 partitus subaequalis, corolla hypogyna bilabiata, unguis tubo recto, faucem inflato dilatato, labio superiore bifido, inferiore trifido; stamina 4 ~~(intus 2 abortivis)~~ corolla tubo inserta, subinclusa, didynama, antherae bicoelares; loculis parallelis; ovari — bicoelare, loculis multiovulatis; stylus simplex, stigma subulatum ~~integrum~~ secundum; capsula ~~tetragona~~ sublens, bisulcata, vix attenuata, bicoelaris polysperma (12 to 20) loculicide bivalvis, valvis medio septiferis, semina retinaculis uncinatis subtensa.

Herba perennis, glabra, erecta, radicans, caulis simplex, foliis sessilibus longe lanceolatis, floribus in axillis foliorum glomeratis, parte sessilibus; corollis minutis, calyce aequantibus. —

In swamps near Houston fl in October. —

~~Stems with and under erecting rooting~~ stems erect simple rooting at the lower joints, or decumbent and branching, branches simple; leaves linear lanceolate 4 to 6 inches long ½ to 1 inch wide acute attenuate at base, ciliate — scabrulate, flowers clustered in the axills of the leaves, closely sessile — calyx segments ~~[illegible]~~ nearly equal ~~[illegible]~~ subulate, about 3/4 lines long; corolla

x so far as I can see

r. brevioris (superiores) + ~~inferiores~~ minores (steriles ?) quam caeteros (Lindh.

sessilis linearis

absolute compressa ~~[illegible]~~ scentis

vix erecti simplicibus

(albis

white, nearly of the ~~same~~ length of the calyx; stigmat lips reversed; longer filaments with larger, white over with smaller anthers; these smaller anthers are present in all flowers examined by me — & they appear to be always 2 celled, but probably they are sterile: the Linnean infers us that they are sometimes ~~wanting~~. style smooth, stigmas subulate simple ~~accided~~ recurved; capsules narrowly oblong x about 5 lines long lines sessile, nearly erect, acute with 4 obtuse angles and two grooves, corresponding to the dissepiment with 12 to 20 ~~seeds~~ flat reddish seeds, dotted with a reddish ~~[illegible]~~ pubescence

292 Ulricularia cornuta Mich. — spongy wet ~~soil~~, west of the Rocky, April.

293. Oxybaphus biflorus n. sp. ~~erecta~~ A
caule erecto glabro, lineis 2 pubescentibus notato foliis ovato-lanceolatis obtusis glabris breviter petiolatis, pseudulis pubescentibus involucro biflora, perigonii purpureis extus strigosis nervis herbaceis 5 ~~cum~~ notatis semi decem fido ~~laciniis alternantibus~~; filamentis longe exsertis 4 s. 5. antheris didymis ~~orbiculatis~~ peltatis.

Prairies west of the Rocky in groups together; fl. July & August. — We have the same species from Athenaeum. — Stem 3 feet and more high, leaves fleshy lower ones 4 inches long 2 inch wide, upper ones narrower and smaller, all very shortly petiolate; pseudule pubescent large, loose, somewhat weight pubescent; involucre always, as far as seen by me 2 flowered; perigonium large, purple, 8 lines diameter, ~~purple~~ hirsute outside purple with 5 green striose ribs which correspond with the 5 angles of the hispid ovary ~~and appear to alternate~~ 5 lobes, lobes bifid ~~with the 5 lobes of the perigonium the~~ achenia 5 angled veins ~~of which are~~ diverging ~~upwards from these~~ green ~~striped~~ hispid ~~striped~~ parts ~~of~~ ribs. I could not discover distinguish from the species of this genus 4-5 stamens

294. Boerhavia diffusa Willd. Common weed in cultivated soil; also on roadsides etc on the Prairies on the Colorado Sept & Oct. – well adapted for the common habitat of the south states by its perennial forming large prostrate branches; also by its viscose pubescence and glandular glutinous exterior; B. erecta (species from Alabama & Louisiana) is annual erect, rather glabrous, with entirely glabrous fruits.

Amongst the texan species of Plantago we find so far 6 annual ones

A. foliis linearibus s. linearis lanceolatis

1. Pl. pusilla
2. Pl. arrstata
3. Pl. gnaphaloides

B. foliis petiolatis ovatis s. ovato – lanceolatis

4. Pl. virginica foliis ovatis s. ovato lanceolatis fl. spica demum interrupta ~~elongata~~ alabastris longe conicis calycis segmentis anterioribus obtusis posterioribus lanceolatis acutis, corolla post anthesin convolutis conicis; seminibus oblongo linearibus flavescentibus minoribus

5. Plantago foliis ovatis, fl. spica demum interrupta alabastris longe conicis, calycis segmentis anterioribus acutis posterioribus acuminatis corolla post anthesin convolutis, conicis; seminibus ovato oblongis rubiscentibus majoribus.

elongata

lanceolatis ovatis acutis

6. Pl. foliis longe petiolatis, ovato – lanceolatis fl. spica compacta brevi alabastris globosis corolla post anthesin patente;

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295 Rivina laevis Lin. Prairies etc near Independency west of the Rocky Mts. Fr. Fig. 2 Is this really a Laevis? I have a small garden specimen under that name with long dense spikes and beautiful small flowers & fruit? —

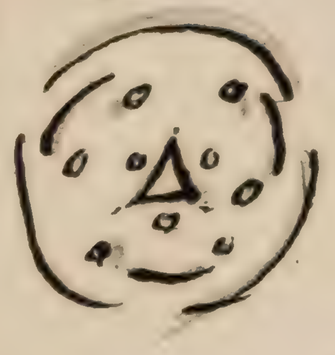
296 Polygonum cristatum n. sp. caule herbaceo, volubili, angulato striato; foliis basi subcordato s. truncato triangularibus acuminatis margine scabris; floribus in axillis foliorum glomeratis s. in spicis foliaceis pauciflorus dispositis; floribus 8 andris, stigmatibus 3 sessilibus; laciniis perigonii fructiferis 3 exterioribus palatis, alis crenato-laciniatis, nucis trigonis parvis cristatis, cristis dispositis

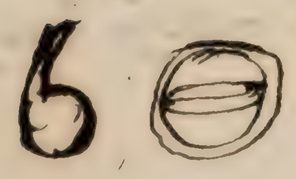
Margins of woods & thickets near Independency July. — Near P. scandens and P. Dumetorum, from which it is distinguished by the hardly cordate but more truncate and triangular leaves, by the laciniate wing-like carinae of the 3 exterior perigonial segments and by the much smaller nuts, which are just one line in length; the nuts of P. scandens are about 1/3 line long & those of P. Dumetorum full 2 lines long. In this last the wings are very broad, foliolate and entire; in P. scandens they are somewhat crenate but frequently not all three developped and in some flowers entirely wanting. P. Convolvulus is easily distinguished by the want of alae in the opaque nuts

167. Eriogonum — On Sandy hills in open places in woods etc. May to August. — Bitter astringent. used internally in decoctions. (Involucre 5 or 6 teeth.

297 ~~Eriotheca pedunculosum~~ n. sp. ~~Linnaeismena eriogonoides~~ Lidheimeria ~~Eriotheca niger~~.

~~Lidheimeria~~ n. g. Involucrum multiflorum campanulatum 5 dentatum; flores hermaphroditi inter involucrum pluriflori ~~exceptacula~~ ~~bracteolis instructi~~ pedicellati, pedicellis cum bracteolis mixtis; perigonium ~~simplex~~ coloratum, membranaceum





calyx - segments per album pedicellum

profunde sex fidum laciniis erectis et tentibus
latissimis, reniformibus, interioribus
linearibus et staminibus 6 exterioribus
cum petalorum laciniis alternantibus 3
interioribus laciniis interioribus oppositis
filamentis subulatis inclusis filiformibus,
antheris ovatis; ovarium trigonum
styli tres filiformes, cum staminibus 3
interioribus alternantes, stigmatibus
obtusis; achenium teres rostratum
pericarpio cinereo-stipitatum; embryo
intra albumen farinaceum rectus
cotyledonibus orbiculatis planis, radicula
elongata supera

Herba texana annua ~~[illegible]~~
canescens tomentosa, foliis exstipulatis
ovato lanceolatis semiamplexicaulibus
subtus canidis, pedunculis terminalibus
di-tri-chotomis ramosis ~~[illegible]~~
involucris corymbosis, floribus
parvis albidis. ~~[illegible]~~

undulatis

elongatis

Eriotheca Lindheimeri n. sp.

Sandy prairies near Industry, July to October. — Stem erect, mostly simple annual, 2 to 2½ feet high with ~~[illegible]~~ leaves sessile clasping ovate lanceolate acuminate, undulate and somewhat denticulate on the margin, flocose above, densely white tomentose beneath, pedunculate terminal elongated; corymb mostly twice tripartite, much divided involucres ~~[illegible]~~ campanulate 5 leaved woolly inside and outside, many flowered flowers erect on articulated pedicels intermixed with woolly bracts ~~[illegible]~~ ~~woolly inside~~ ~~[illegible]~~ ~~glabrous~~; 3 external segments of Corolla much like the interior ones of Nuttall's Adansonia (whence the name, a woolly Adansonia) Calyx ovate conate, or reniform, the 3 interior ones linear spathulate all tomentous inside at base, ~~smooth~~ glabrous outside

12. Lindheimer Collect 1844

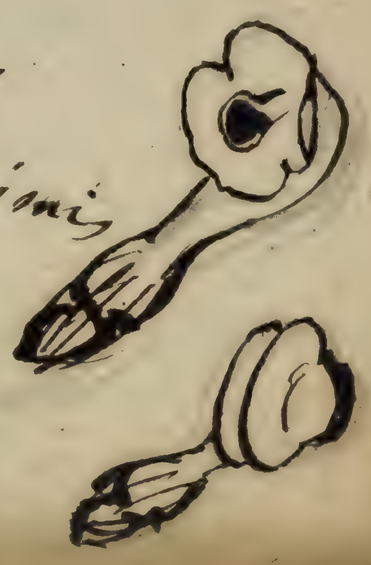
filaments glabrous, about the length of the perigonium — Ovary glabrous triangular, with 3 styles; stigmata obtuse, but not capitate; — Near Eriogonum but distinguished by the ~~the~~ st annual growth, by the difference of the ~~sepals~~ exst & int of the perigon which are nearly equal — Eriogonum; * By the ~~round~~ broad & not angular achenium, and the mealy farinaceous albumen. — by the obtuse and capitate stigmas.

298. Aristolochia longiflora n sp. caule humili diffuse ramoso, foliis longe linearibus subcoriaceis ~~basi petiolatis~~, utrinque avutissimis glabris, floribus axillaris ~~petiolatis~~ pedunculatis ~~ovario pubescente~~ bractea ovata extus pubescentibus, limbo longissimo ligulato.

Rocky grassy spots near the Mill Creek April to July. — A remarkable ~~plant~~ plant! very different from ~~Sieriolo~~ root ~~very long~~ ~~deeply penetrating~~ any other North America ~~into the~~ ~~simple~~ as far as we can see, aromatic, stems several branching from the base, weak, ascending, 6 inches high branching at base; leaves ~~very long~~ 3 to 5 inches long 1–3 lines wide; flowers axillary along the stem; peduncles 3 to 6 lines long, ~~very with the plant at base~~ bract linear lanceolate at base of the pubescent ovary; Perigon 3 to 5 inches long pubescent outside dark purple & spotted inside; * capsule smooth

+ limb lightly cordate at base narrowed upwards linear and longer as long as the tube.

299 Aristolochia reticulata n sp. caule humili erecto, foliis brevissime petiolatis, ovato-cordatis obtusis, subtus prominente venosa reticulatis, racemis paucifloris subradicalibus ~~prostratis~~ ~~solo ~~ bracteatis, floribus hirsutissimis pedicellatis ovario ebracteato, tubo incurvo, limbo bilabiato



~~Very affinis~~ — high grass near Calispring west of the Rocky, May & June.

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Near A. Serpentaria root similar, but filiform with thicker, of similar taste also used medicinally as a Snakeroot of Lindh. Jj. stems 6 to 8 inches high one or a few from the same root, hairy leaves of a firm texture strongly reticulated beneath, hairy on the veins; racemes in the axills of the lowest only leaves at the base of the stem, two with from one to 4 or 5 flowers prostrate on the ground very hairy

oval or elliptical deeply cordate at base, obtuse

Tube 2 inches long 1/4 or 1/4 wide

~~very yellow pedicelled~~ tube

about 6 lines long

flowers pedicelled ~~tube~~ tube somewhat ventricose at base, narrowed and curved upwards much constricted at the throat expanding to an op. dark purple limb, with two nearly equal lobes

300 Euphorbia parvifolia n. sp. annua prostrata, glabra, glauca, foliis oppositis, ovato orbiculatis, obtusissimis integris, basi oblique obtusis s. subcordatis, petiolis brevibus, stipulis connatis triangularibus integris s. margine setaceo fimbriatis, pedunculis axillaribus petiolos multo superantibus ! dichotomis ramorum singulis s. in ramulis foliis alternantibus glomeratis: involucri glandulis angulo petaloideo-marginatis semilibus e cinereo rubellis, ovato oblongis, obtuse angulatis, laevibus.

In clayey soil near Industry July to Sept. — Also along the Mississippi, Arkansas and Missouri in alluvial sandy or generally black heavy soil. — Perhaps the smallest of our prostrate Euphorbias, leaves from one to 2 or 3 lines long, seeds about 1/2 line long; nearest to Elliot's E. cordifolia but much smaller — all parts, flowers more crowded, & stipules, more entire

& petaloid appendages small transversely oval, and emarginate

Mixed with this plant were another species which I believe is undescribed I have found the same — Prof Short's Collection sent from a person by Dr Hale under the name E. rotundifolia but as ~~E. rotundifolia~~ this is a name already used, and the leaves are frequently more oblong than round I have called it

E. oblongifolia pride Euphorb.

besides these and the following we have about 10 more Euphorbias with opposite stipulated leaves in the N. States, which are partly

difficult to distinguish. But their seeds furnish some very ~~grand~~ characters; ~~they~~ may be divided into two classes: 1, with smooth reddish gray seeds, and entire and ~~smooth~~ glabrous leaves and 2, with uneven, tuberculated rugose or foveolate reddish gray or blackish seeds and serrated smooth or hairy leaves. All these are annual. But there is one ~~collected~~ species on the upper Platte river towards the Rocky Mountains which I call E. dalbordea which is ~~apparently~~ perennial has smooth entire leaves but foveolate seeds, therefore in many respects very different from all the others.

301. Euph. grandiflorum annua erecta-petula glabra, foliis oppositis linearibus integris, ~~alternis~~ inferioribus, inferioribus basi subdilatatis acutis, brevitem petiolatis, stipulis e basi latis subulatis distinctis, subintegris; pedunculis petiolos longe superantibus, in dichotomia ramorum sæpe regularis, appendicibus involucri petaloideis ovatis subiriantis, inæqualibus, plerumque 4 sensibus obovato subglobosis laevibus e rubello cinereis

Sandy places, especially about fresh anthills in Prairies and open woods about Independency, also on Sandstone rocks there, flowering ~~flowers~~ large bushes, often 6 feet in circumference 2 or 2½ feet high; smaller plants are frequently erect, — A very slender somewhat of the habit of a Cory Gilium ~~plant~~ with conspicuous white flowers and long linear distant leaves; ~~leaves~~ stems lines long and less than a line wide; peduncles 2 to 4 lines long.

302 E. arkansana annua erecta glabra, ramulis a basi ramosis, foliis sparsis spathulato obovatis, ~~[illegible]~~ spinis petiolatis, superioribus sessilibus, basi angustatis, versus apicem serrulatis acutius culis, ~~[illegible]~~ obovato ovatis, sensim, mucronatis, umbellis dichotomis, (bis dichotomis) ~~foliis involucrantibus~~ bractéis glandulis involucri ~~rotundatis~~ orbiculatis, capsulis verrucosis, seminibus rugoso reticulatis,

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Roads, &c = Prairies, fr Hoot to the Colorado, April & July. — Also near Fort Gibson = Arkansas (E.) — A annual 8 to 12 inches high, branching from the base, involucral glands orange colour; seeds ~~[illegible]~~ dark brown.

303. E. ulolenca annua ~~[illegible]~~ erecta infra glabra, supra ~~[illegible]~~ pilosa ramulis villosis, foliis sessilibus obovatis cuspidatis, integris, glabris; umbellae tri fidae ramis bis dichotomis, bracteis lanceolatis, acuminatis, involucro villosi petaloideis orbiculatis, capsulis ~~[illegible]~~ lanatis seminibus tuberculato rugosis

v. obovatis

v. basi pilosis

Frickotyrsi [illegible]

2. the heavy bottom lands of the Colorado river, August & Sept. 3 to ~~5~~ feet high, near E. Grandiflora (No. 174) but distinguished by the broader smoothish leaves, by the denser umbels, much shorter bracts which are smooth and on the white margin crisp, but principally by the smaller and very rough tuberculated and rugose seeds; those of E. Grandiflora are smaller larger, and the wrinkles on them are ~~[illegible]~~ slight and indistinct. E. marginata is distinguished by the broader leaves, ~~[illegible]~~ oval obtuse and innovate bracts (and the seed)

Pilanophyton Hooker low

304. ~~Grata~~ capitata Nutt Prairies near the Colorado river. Sept & Oct.

here to also Cr. Lindh pl No. 171

305. Hendecandra tuberculata n. sp. annua, dioica, undique ~~[illegible]~~ stellato pubescente ramosissima, foliis ~~[illegible]~~ longe lanceolatis, utrinque obtusis petiolatis, exstipulatis; fl. masculis pedicellatis in glomerulos pedicellatos spicam interruptam formantibus, congestis terminalibus, axillaribusque; calyce 5 partito, corolla nulla, disco squamis 5 sepalis oppositis obsito, staminibus 11–12, ovario

supra viridescentibus, infra incanis.

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13. Ludheim. Collect 1844

foemineis singulis s. binis; fem. unilibris s. in dichotomia ramorum brevioribus pedunculis; calyx 5 phyllus, aequalibus, demum disco orbiculato insidente stylis 3 ter bifidis stigmatibus sub 24; capsula dense stellato tomentosa, tuberculosa. —

Prairies in the Colorado — Cotton stuff, male & female plants generally intermixed, and covering large patches of ground. —

An annual about 3 feet high; — leaves above and below stellate pubescent, but below much denser, and whitish; 1½ to 2 inches long, and 3 to 5 lines wide; length of petioles equal to the breadth of the leaf. * Capsules covered with tubercles, on which the stellate hairs are more crowded, which gives it very curious appearance. Seeds nearly orbicular, compressed, about 1 8/10 lines in diameter. — Near. Hendecandra multiflora Torrey & Fremont's report 1843 but ~~distinct~~ ~~by the~~ apparently well distinguished: this last one, of which I have only a male specimen coll. by Dr Mersh 1843 on the upper Platte river, has leaves smooth above and the entire pubescence not so dense; it has the male flowers in a dense compound spike the single flowers are ~~larger~~, nearly twice as large, and have only 7 to 8 stamens, ~~which~~ an orbicular not five lobed disc. — Is Fremont's plant (cited by Torrey Vol III. 266) our species or the Missouri plant?

* for 20 to 24 stigmas division of

Cr. ~~capitatus~~ No 172. Cr. glandulosus. = Geiseleria glandulosa Klotzsch but the calyx of the male flowers 5, not 4 parted, with 9 to 10, not 8 stamens.

Engelmannia Klotzsch has a 3 not 5 parted ~~male~~ calyx of male flow. 3 not 5 petals, 3 to 6 not 5 stamens; cal of fem. fl. 4–6 parts, not 5 (vide Endlicher 5-226, 1)

What new genus does Croton maritimus belong to? I can not find any — Endlicher that suits it; it has 12 stamens but no petals; calyx of fem. flow 5 or 6 parted. Is it a Hendecandra? but not dioicous! —

Cr. argyrathe appears to be a true Croton but ~~stamens~~ ovary on an orbicular, not 5-glandular disc

178 Letrosp. stricta is Chidrosolus ~~stricta~~ (Bot.)

306 ~~Fragia humilis~~

cal. foem 5-fid; ~~sub~~-aequalis; discus hypogyn. squamis 10; 5 ~~petalis~~ alternis minoribus obtusioribus 5 ~~sepalis~~ oppositis majoribus ~~parabellis~~, stylis 3 partitis ~~bipartitis~~ stigm. 6 dilatatis vel mass. 5-fid. ~~6~~ petal. 5 ~~bilobis~~ pilosis, stam. ~~7~~ petalis c. sepalis alternantibus disco 5-dentato inter discos indos subplanis ~~parabellis~~, sepalis oppositis

306 ~~Fragoerodon~~ humilis n. sp.

~~Fragoerodon~~ n. gen.: flores monoici spicati s. glomerati singuli bracteati ~~Masc.~~: calyx 5 (rar. 6) partitus subaequalis; ~~petala~~ 5 ~~spatulata~~, calycis laciniis alternantibus, disco 5 glandulosa insidentia, glandulis subulatis, calycis laciniis oppositis; ~~stamina~~ sub 8; filamentis infer. in columnam coalitis, superne filiformibus, distinctis, bifariam verticillatis, antheris bilobis, versatilibus. Fem. ~~calyx~~ ~~sepalis~~, petala nulla, ~~glandulae~~ ~~discus 5 glandulosus~~, glandulae discos 5 subulatae, calycis laciniis ~~sepalorum~~ oppositae ~~intus 5 minores alternae~~; ovarium sessile tricoccum, loculis uniovulatis. Styles bifidae, laciniis bifidis; stigmatibus 6, ~~subpeltatis~~ ~~crenulatis~~ dilatatis reniformibus, crenulatis ~~inflatis~~, ~~capsulae~~ pilosae trivalves, ~~simplicibus~~ ~~pilosae~~.

Herbae perennes texanae pilis bifidis ~~simplicibus~~ vestitae s. glabriusculae foliis alternis integerrimis, ~~et~~ stipulatis interdum colore purpureo inbutis; pedunculis axillaribus bracteatis, floribus paucis ~~glomeratis~~ capitatis s. pluribus elongato spicatis feminineis ~~pedunculis~~ vel paucis) ad basin spicae; petalis persistentibus albidis ~~calyce~~

Nomen et habitus Fragariae et affinitas Crotonis referens ~~Fragoerodon humilis~~ Nutt. Capsomia especially ~~these~~ D. texana vel, but distinguished by the glandular ~~in the flowers~~ by the smaller number of stamens, the shape of the stigmata and the ~~smooth~~ wrinkled seeds.

~~Fragoerodon humilis~~ caulibus pluribus adscendentibus, prostratis, a basi ramosis, foliis ovato lanceolatis, brevissime petiolatis adpresse pilosis, ~~inferioribus~~ demum supra glabratis; glomeris axillaris,

cotyl. medio affixus filamentis extis crectis cor. connatis

vel discoi

× activation valvatis may activis circumflexis

vel ~~minutissima~~ rudimentaria

ovoid bivalves monosperms semina globosa rugosa!

folis multo brevioribus
pauciflorus, ~~bis~~ flore foeminei ad basin
petalis; flore foem. ~~redimentarius~~ tubulatis
glandulis brevioribus; in fl. masculo calycem
petalis oblanceolatis capsulis adpresse
pilosis
sensibus tuberculoso rugosis.

In hard clayey soil east of the Brazos for March to August. — The smallest of the 3 species known to us; 6 inches high, easily distinguished by the small leaves (1 to 1½ inches long and nearly ½ inch wide) glomerate flowers, and small seeds (which are hardly more than one line in diameter) and are curiously tuberculate, ~~[illegible]~~ rugose and striate under a glass. The filaments are connected in a column upper part free, 4 or 5 of the female flowers in a lower verticil and 2 or 3 an upper verticil; male flowers about 4 in each glomerule or short spike

175. Trifolium erectum caulibus erectis simplicibus v. superne ramosis pilosis, foliis ovatis sessilibus, supra denique pilosis, spicis axillaris, foliis multo longioribus, inferioribus sub binis distantibus, superioribus ~~multiflorum~~ fl. foem. ~~[illegible]~~ obovatis, masculis ~~[illegible]~~ petalis oblanceolatis calyce aequantibus; fl. masc. glandulis minutis pilosis, fl. foem. glandulis ~~setaceis~~ tubulatis obtusis pilosis; petalis nullis; capsulis laevibus ~~[illegible]~~ tuberculato rugosis.

On dry prairies with hard soil, on the banks ~~margins~~ of Creeks, east & west of the Brazos. fl. May to July. — Stems, stout 12 to 18 inches high; leaves 1¼ to 2 inches long, ¾ to 1 inch wide, very hairy below; ~~spikes on~~ ~~long peduncles of spikes~~ long ~~the leaves~~ ~~spikes long peduncles, naked below~~ spikes about 3 inches long, naked for the lower half; about 2 female flowers below distant; male flowers about ~~8~~ or 10 ~~towards the~~ above approximate; male flowers (about 1 line long) with broad acute ~~[illegible]~~ dull purple petals; seeds ~~about~~ nor than 2 lines in diameter.

Besides these we find mixed up with the latter one some specimens of a third species which we call

Trifolium glabrior ~~Dianeus~~ caulibus pluribus erectis simplicibus v. superne ramosis ~~foliis ovatis~~ sessilibus supra glabriusculis, spicis axillaris, sublus ad venas pilosis;

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multiflorus

longe pedunculatis masculis elongatis, folia multo superantibus; foemineis brevibus, paurifloris, folia ~~aequantibus~~ vix excedentibus; rare monoecis, infra foemineis super elongatis masculis. fl. mas. petalis obovatis acutis calyce aequalibus, glandulis glabris; fl. foem. glandulis subulatis acutis, glabris, petalis sullis capsulis adpresse pubescentibus semiobtus leviusve rugosis.

On banks of Creeks near ~~Independency~~ Cat spring; May to July — Near the last species with which it may confoundedly but will distinguished by being nearly always dioicous by ~~the~~ more ~~smaller~~ leaves, with beard finely ~~it with~~ together with the stem quite glabrous, the larger flowers — the ~~upper~~ pubescent capsule — the less wrinkled closely and thinly ~~see~~ nearly smooth seeds. — Stems ~~12 to 18 inches high. flow~~ — leaves ⅓ size — shape ~~the~~ last species; male flowers twice as large, ~~only~~ & segments — petals about 2 lines long; seeds hardly two lines ⅓ diameter. — male ~~the~~ ~~those~~ ~~that~~ bear male — female flowers (of which we have only a single specimen) ~~at~~ 3 inches ~~long~~ more ~~and longer~~ ~~female~~ spikes of the female plant 1 to 1½ inches long with ~~to~~ two 3 flowers with 20 to 30 flowers; seeds about 2 lines ⅓ diameter rather smaller than the last species.

307. Tragia brevispica n. sp. multicaulis ramosa, ~~adscen~~ procumbens, adscendens apicibus ~~subvolubilis~~, ramis apice flexuosis ~~et~~ volubilibus; foliis e basi cordata ~~et~~ transverse lanceolato lineribus, irregulariter dente dentatis, parce pilosis, ~~corporatis~~ petiolatis; spicis ~~floribus~~ foliis opposita multo brevioribus, ~~plerumque~~ ad basin unico masculis pilosis; capsulis hispidis.

In black clayey soil in the Barrens west of the Pinjos. — In this ~~pile~~ as in all other Tragiae ~~two~~ the spikes terminate the branches or become more frequently (by the elongation of the axillary shoot) opposite to the leaf sometimes they appear to come out of

the stem above the insertion of the leaf or — other words, their common peduncle is coalescing with the stem. — This species is nearly related to T. cordifolia but distinguished by the procumbent stems, which often forms bushes of 2 feet or 3 feet in diameter which are frequently twisted or clustering at their extremities; by the much narrower smaller leaves (for 3/4 to 2 inches long — & for 2 to 6 lines wide) but especially by the short spikes (= T. cordifolia too) and much longer the the leaf and manyflowered flowers & fruit, which ~~differs also~~ hispid. The diameter of the seed is 1/35 of a line — that of T. cordifolia 1/45 or nearly 2 lines (why does Endlicher No 5782 call the flowers axillary though — the next genus he says "species oppositifolia" — as it is in this. —

308 Forestiera acuminata Poir On the banks of the Brazos near Sou Antonio. March 18 I have found the same plant on the Erbach, Illinois Mississippi; Neosho, Arkansas rivers. —

NB. Among Lindh. former collections is a plant evidently near Forestiera: a pubescent shrub, with opposite leaves; similar inflorescence, but flowering in summer. in the axills of the amentaceous scales are 2 to 4 ~~stadminate~~ male flowers and sometimes hermaphrodite or female flowers with them; I have seen fertile flowers with 1 stamen — with 2 or 3 stamens; ovary 2 capellari, with 2 styles. —

U. crassifolia Natt.

Ulmus in flower in April, leaves small but obtuse, segments of perigon 8, linear oval villous — by the narrow segments from all other ulmi distinguished!

309. Quercus cinerea Mich Sandy ~~hilly~~ soil forming groves in the Prairies; together with Q. obtusiloba. Ft. Inbor. — The earliest flowering species in Texas, Never a large tree; often crooked, very much branched, unsightly except in spring when the silvergray leaves with the reddish tops form an agreeable contrast with the fresh green of the prairies.

20 May

311. Potamogeton natans ~~flexilis~~ Rothiv.? v foliis ~~omnibus petiolatis~~ infimis submersis elongato lanceolatis, ~~oblongis~~ utrinque attenuatis pelliceidis, brevius petiolatis, sequentibus longius petiolatis, semsim magis oblongis, coriaceis que summis natantibus elongis, obtusis coriaceis, pedunculis aequalibus, fructiferis erassioribus fructibus biliculari compressis, margine acutiusculis, ~~subsquare~~

In clear water, especially in pools formed by slow running rivulets west of the Brazos R. June. ~~In this plant~~ is apparently distinguished from P. natans by the long petiols of the upper — a very short one of the lowest leaves which are very narrowly lanceolate. also by the more elongated & mostly somewhat acute upper leaves, but principally by the acute margin or carina of the fruit; — in this respect it approaches P. flexilis; We have a similar form in the lakes in the low grounds on the Mississippi near St Louis. fruit entirely the same swimming ~~upper~~ leaves (~~varieties~~ ~~similar~~ elliptical petioled but not always present; Spikes mostly in the axills of the lanceolate nearly sessile ~~submersed~~ coarsely leaves; — This ~~It~~ the specimens without the upper coriaceous leaves (which ~~gives~~ other make their appearance only after flowering) are difficult to distinguish from Potamogeton lucens L, and may possibly be a variety of this.

310 Potamogeton diversifolius Dest fr. specimen Sill. Sum. 46. pag. 102. ~~with the following~~ In clear rivulets in prairie west of San Felipe; April. Leaves from 5 or 7 to 13 inches!

312 Xyris brevifolia Mich Springy ~~of~~ swamy places near Calspring — May. — I have seen this same species under this name sent by Dr Hale from Louisiana and it agrees better with Michaux's description than any other I have seen so that I conclude it may be Michaux's plant. — Stems 12 — 15 inches high, twisted

311 slightly compressed with two prominent angles, smooth not thickened below the ~~base~~ X ~~base~~ globose; scales v. obovate ~~irregularly fringed~~ ~~notched~~ slightly crenulate. two lateral sepals obliquely, irregularly fringed & notched on the back. —

X leaves alternate, twisted, 4 to 6 or 7 inches long.

I can distinguish 8 species of Xyris in my collection; 5 of the are texan ~~two~~ other eastern (carolinensis for N York, brevifolia "Curtis N Carol.) and one (fimbriata of Chapel Hill not Elliot) for Louisiana. "It is easy to class them according to their stem, which is 2 or many angled angles scabrous or smooth; bracts, & lateral sepals.

313 Lizyrichium minus n. sp. caule anceps ramoso foliosso, spatha paulo inaequali flores ~~vix super~~ ~~sub~~ aequante s. paulo excedente; perigonii segmentis (ovalis) ovatis extensibus retuso-mucronatis, capsulis ovatis glabris

margin of stagnant waters in the Canyons west of San Felipe. Sept. — Distinguished from the other North American species by the smaller size of ~~all pa~~ the whole plant and all parts, the much branched stem, the ovate not obovate or emarginate lobes of the perigonium, and the oval, not globose capsule. ~~seeds globose, impressed dotted, black~~ stem 4 to 6 inches high, leaves mostly radical 1 – 2 inches long, spathe 8. to 12 lines long, inner valve a little shorter than the other one, with about ~~4~~ flowers of the same length, or a little shorter, rarely somewhat longer; ~~bracts wal~~ spathe after flowering increasing in size; segments of perigon blue, about 2½ or 3 lines long; capsules small ovate or obovate, 2½ lines long and 1½ line in diameter, seeds numerous very small, impressed dotted, black.

N.B. our Moraea, № 189 must belong to a Genus not described by Endlicher, though certainly a known plant, as it is very common in Texas and in flower all spring & Summer. — It is distinguished by the broad connectivum ~~of the~~ between the cells of the

authors, which ~~they~~ may in one or other, amongst Indeed appear to have, e.g. Cypella Lindl. and is distinguished in this respect from Moraea, bases of plants very broad, triangular, but apparently not connected, stigmata 3 dilated bifida. This ~~texan~~ xia s. Nemastylis (Trichoneima? Endl.) must be different from N. ovalifolia of Florida?

~~5th~~ Lindheimerian

~~Perigonium corollinum superum, infundibuliforme, tubo recto, semim ampliato, limbi brevis 6 fidi, ~~regularis~~ laciniis ~~ovatis~~ aequalibus erectis; stamina 6.~~

314 Amaryllis Lindheimeri; x sp. foliis linearibus ~~mutis~~ planis, scapo uniflorofolia superante, ~~spatha tubulosa bifida~~ flore intra spatham tubulosam bifidam pedunculato, pedunculo exserto; perigonii ~~tubo~~ brevissimi, fauce nuda; limbo regulari erecto; staminibus inaequalibus involutis; stigmate trifido; capsula subtriloba, globosa, seminibus plurimis compressis alatis angulis.

Flower in dried, upper stamen much shorter the lower ones all inserted; — perigon lurid, yellowish brown with darker yellow ~~stripes~~ lines. — flower always half closed.

In black dagey soil in low parts of the Colorado prairies; generally many together; ± flowers ± September; petals inside yellow, outside reddish orange. — A small but very pretty bulbous plant; ~~leaves~~ 2 or 3 inches long, 1/2 to 1 line wide; scape 2 to 3 inches ~~high~~; spatha about 9 lines long, scarious; peduncle 1 to 1 1/2 inch long; flower 12 to 14 lines long; capsule about 4 lines in diameter. — A Amaryllis, belonging probably to Zephyr. authors Herb. (Endl.); with an extremely short tube.

Spatha 1 - 1 1/2 inch long; segments of perianth 1 1/2 inch long, lower 3 to 4 lines wide

(If another undescribed genus, I should like to call it Lindheimeria)

N.B. Besides the Cooperia No. 196 Lindheimer has sent a second species, of which you get ~~two~~ also the bulbs; it is distinguished by flat broad leaves, larger flowers, but especially by pedicellate flowers! peduncle in the

15. Lindheimer Collect. 1844.

among the Cooperian with sessile flowers I have two, according to the size of the bulb ~~or~~ width of the ~~bulb~~ leaves; one has ⅓ to ½ lin wide leaves the other ~~the~~ 2 lines wide and more rounded-tubed but with this is a difference in the flowers I do not know. —

~~315 Allium~~

199. Allium mutabile Mich. Shady moist places on the Millcreek April & May. — Spring larger than those collected near Houston; for 12 to 20 inches high. Bulb ~~tunicated~~ reticulated ~~Coverings~~ ~~with~~ a crown of 3 scales which disappears on the ripe capsule; in this respect dissimilar to All. angulare (not lin) and A. stellatum since the 6 scales of the bulb remain on the capsule as a crown. Ovary with 6 ovules, capsule with one to 3 seeds. —

315. Heleocharis

pondst. Millcreek, March. — Very near H. acicularis but stems stouter, more angled, spikes larger with more scales, scales more equal — ~~with~~ Chaetothec. the lowest is much larger than the others and complexion green with membranous margins ~~ribbed~~ nerved (not brown and without ~~ribs~~ nerves) with 3 ~~sharp~~ bristles at base, obligately longitudinally ribbed (no bristles in H. ac.) and finely transversely wrinkled. —

316. Fimbrium cylindricum Mich. Prairies west of the Brazos, April & May. —

317 Andropogon macrourus Mich. On rivulets near the Colorado Sept.

Setaria glauca var. S. Geyeri Vasey

318. Cham. polyphylla A. Braun, L. Michauxii

On clayey soil in clear rivulets in the Prairies between the Brazos & Colorado July and the whole year round. —

~~The [illegible] has [illegible]~~

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In addition to the ~~[illegible]~~ enumeration of Northamerican Characeae published in this Journal, Vol. 46 pag. 92 (Jan. 1844) we ~~have~~ to add ~~that we have obtained specimens of Ch. flexilis~~ also we think it proper to add a few notices communicated by Prof Braun.

Mr Lindheimer has ~~sent~~ ~~for~~ Texas specimens of Chara flexilis ~~Lin~~, (too incomplete to be ~~fully det~~ well determined) and of Ch. tenuissima Desv. this as well as the specimens from Massachusetts, may be distinguished as var. americana. The verticilli are less densely glomerate but more approximate than in the european form. —

Chara polyphylla A. Br. is a very polymorphous plant occurring in many ~~subspecies or~~ different forms ~~varieties~~ in ~~North America~~ ~~the East Indies~~ ~~Ceylon, Java~~ Mr Braun distinguishes 7 subspecies:

× ~~throughout the Indian~~ America, Asia & ~~the Indian~~ islands,

a. Ch. polyphylla Michauxii (Ch. polyphylla A. Br. in Regensb. bot. Zeit 1835 pag. 70. Ch. Michauxii A. Br. in Sillim. Jour. l.c. N.° 11 Ch. capillata Michaux in herb. Jussieu. Ch. haitensis Turpin Dest. So. nat. Atlas) Ohio, Michaux. Dr Frank Missouri (& Ceylon) Texas (Mr Lindheimer) Hayti (Turpin 1796). This is the slenderest and the same time the most northern of all species & subspecies of the very remarkable group of Gymnopodae A. Br. There are 5 species now known belonging to this group; and of these Ch. polyphylla is the most polymorphous and widest spread species. — The Gymnopodae are distinguished by having the lowest (often very short) joint of the otherwise coated ~~(or incrusted)~~ leaves (commonly called verticillated branchlets) naked or destitute of the coating.

b. Ch. pol. guadelupensis (Ch. indica Bertero) Guadeloupe (Bertero); more slender with smaller and elongated seed vessels (sporangia) and still shorter barts.

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c. Ch. pol. ceylanica (Ch. ceylanica Klein in Willd)
Ceylon, Pondicherry, Madras etc

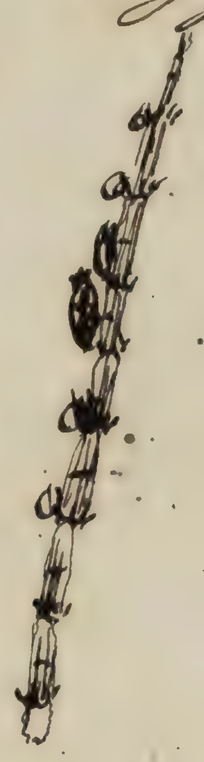
d. Ch. pol. javanica.

e. Ch. pol. Muhlenbergii (Ch. foliosa Muhlenb. in Willd) also Sill Jour. L.C. 47.93 No 10
Pennsylvania Muhlenb. Very near ~~to~~ subspecies c, ceylanica, and distinguished from a, Michauxii by the bracts being much longer than the sporangia, while they are shorter in Michauxii.

f. Ch. pol. Humboldtiana (Ch compressa H.B.K.)
New Andalusia, Humboldt. A variety with some of the ~~upper~~ joints of the branchlets destitute of the coating.

g. Ch. pol. armata (Ch armata Meyen. Reisebeschr)
Sandwich Islands Meyen; distinguished by stronger spines and also mostly naked upper joints and smaller seedvessels.

A second ~~Another~~ species, distinct from Ch. polyphylla but also belonging to the Gymnopodae has been collected by Dr Engelman in the lakes in the bottom lands of the Mississippi near St Louis; it is called by Prof Braun



Ch. gracilenta, ~~distinguished~~ a more slender and greener plant than Ch. polyphylla but principally distinguished by the seedvessels (sporangia) and globules (often called anthers) being always found on different joints of the leaves (or branchlets) never as in most of the species together on the same joint. Martius has collected the same species in Brazil the Nitimerson form is larger and more slender ~~has bracts shorter~~ than the seeds, and may therefore be called var. brevibracteata, and the Brazilian longibracteata.

NB. a Lemna which I have sent to Prof Brown from here as well as for Martius under the name of L. polyrhiza, for which I took it, has been decidedly declared to be a new species and called Lemna umbonata

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Sandy wet prairies Houston Texas April & May
5 - 12 heads (old 15 - 25) but also 20 - 50 (.10 - .20)
Different from mucronata by the short spike, the larger
~~heads~~ (5 - 7 lines long), lanceolate scales
much larger smooth or a little scabrous
fruit, which is not shorter than equal to
the pappus - also by the leaves dilated at
base which in L. mucronata is only the
case in the ~~lowest~~ inferior leaves - and
(allowing and rather) obtuse (not very acute)
at tip. and probably time of flowering
appears to be other in July - August.

2. Coreopsis grandiflora? what is the difference
of this and coronata? outer scales of
involucre also ciliate! Athenian Crowley
winged

29 Echinacea angustifolia DC = E. pallida Nutt. very
similar to E. sanguinea Nutt, which I take to
be the common form in Missouri & Illinois.
There is perhaps some difference in the seed:
E. angustifolia is a much smaller plant
pedunculi long, hardly thickened at top,
head hemisphendal not conic at all, rather
somewhat flattened fl. in terminal
April & May. rays 1 1/4 - 2 inch long
8 - 13 more or less 2 - 3 inch
E. sanguinea is stouter,
peduncle long, incrassate for some distance
below the head, and consideably so immediately
below it - head as large again, hemispherical
and somewhat conical; fl. about Illinois
in May & June rays 2 - 2 1/2 inch long
Aplopappus phylocephalus DC Gilbertia Pilosa
fully corresponding with DC Description but
~~leaves~~ Athenian silky villous not glabrous!
(but the same mistake appears to have been made

Astragalus spinulosus!

31 Helianthus occurvatus n. sp. similar to H. angustifolius; stem more simple! leaves narrower, spreading or recurved! very scabrous above & hispid beneath! — Disc brown, not purple, disc flowers with long exserted Anthers. (in H. a. same length with the corolla) tube of corolla smooth not pubescent one fourth ~~half~~ as long as neck (not half as long) only tip of segments of corolla purplish ~~achenia~~, pappus, and pulvus the same in both.

73. Tephrosia ~~sericea~~ argentea n. sp. caule erecto ~~pubescente~~ villoso, foliis petiolatis; foliolis 13–21 (9–10 jugis) cuneatis retusis emarginatis ve mucronatis supra glabris reticulatis subtus adpresse argenteo pubescentibus; stipulis subulatis persistentibus; pedunculis elongatis paucifloris; calyce albido villoso segmentis triangulibus tubum aequantibus, infimo subulato elongato ~~oppo crucifly~~

P.E.B. Mo.

70 Astragalus flagellaris n. sp. caule procumbente ~~glabrescente~~ demum elongato (12–20 inches long); foliolis (glabris vel ~~obovatis~~) 7–10 jugis, infimis obcordatis reliquis oblongis obovatis retusis v. emarginatis (mucronatis) pedunculis folia superantibus; ~~floribus ~~capitulis~~~~ capitulis florum laxis ovatis 8–15 floris; calyce petiolato pilis albidis (brevibus) sparsis adpressis subpubescente, dentibus triangularibus, vix dimidia ~~tubi~~ ~~tubi~~ tubi longitudine; leguminibus ~~pedicellatis~~ glabris reticulatis oblongis incurvis ~~apiculatis~~, sulcis superiore inflexa sulcata. —

distinct from Astragalus by the calyx teeth and inflexed sutures of the pod; from Dimorphus by the strongly reticulated ~~pedunculat~~ pods.

N.B. some legumes less reticulate than others! E.W.B.

~~Astragalus compositus~~

see below

N.B. Cuscuta nitens. [illegible] Engl 7

Cator [illegible] Ann 10

Buchnera elongata, 1844 [illegible] Fraser 2

Hippestis nigrescens [illegible] Duff 7

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The money to be paid over
Scholefield Hons, Birmingham
Adolphus Meier & Co, St Louis to
Dr Geo Engelmann, St Louis

20 4.83 24.15

36
483 | 25.44 | 5267 ~~11~~ ~~£~~ £
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a Gray Corrected ? Apuntia — Buchnera — Liatris Cactus texensis &c

~~Velpanis Cactus~~.

Dunal says Liatris elegans Nat Lindh. is fine set if L. mucronata

15, 1847.

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...ngerthook see Gray N. Wright 2. 13. note good species! Tate

V. purpurea Gray N. Wright 2. 14

V. montana Gray N. Hall Hook. 58 Tate

over

Physaria didymocarpa Hook

Ph. Geyeri Hook Lond Jour Bot VI. p. 70 t. 5

Ph. didymocarpa var? Gray N. Pacific. 263 No. 101

Ph. Newberryi Gray. N. Pacific p. 6

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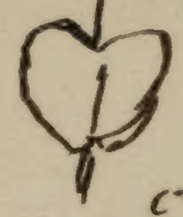
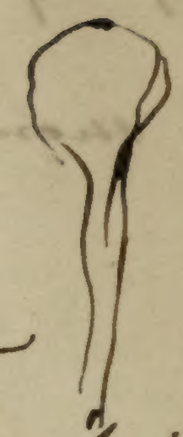
Physaria didymocarpa

Ph. Gooseii leaves small orbicular
silvery stellate
compressed.



pouch
cells 2 seeded



Ph. Newberryi petals obovate 1/2 poll.
silvery not emarginate at base
sinus very narrow; cells 1–2 seeded

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